European Preferred Parts List

Issue: 19
Issue Date: 2011-12-14

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	CH (Type II)	Ceramic dielectric, Fixed, high capacitance. Cap.Range (uF) / Tol. (±%) / Rated Volt. (V) / Temp.Characteristic (%) 0.33 to 39 / 10/20 / 200 / ±20(Vt=0V),-50+30(Vt=Ur) 1.2 to 150 / 10/20 / 100 / ±20(Vt=0V),-50+30(Vt=Ur) 1.8 to 180 / 10/20 / 50 / ±20(Vt=0V),-50+30(Vt=Ur) Size (max. mm.): 40.6 x 24 x 14.8 (Style L case) Operating temperature range (°C.): -55 to +125	ESCC 3001/030	SMD	• AVX Limited	
2	CNC 3*	Ceramic dielectric, Fixed, high capacitance. Tolerance: 10, 20% Capacitance ranges (uf): 16V / 25V CNC31PE 2.2 - 12 / 1.2 - 6.8 1 to 3 chips CNC32PE 2.7 - 15 / 1.8 - 10 1 to 3 chips CNC33PE 4.7 - 33 / 3.3 - 22 1 to 4 chips CNC34PE 8.2 - 68 / 5.6 - 39 1 to 4 chips Size (max. mm.): 12 x 12.5 x H; H = 2.5mm (case A), 4.8mm (case B), 7mm (case C), 9.5mm (case D) Operating temperature range (°C.): -55 to +125	EFD 635.03.390	DIL, SMD	• EUROFARAD	
2	CNC 5*	Ceramic dielectric, Fixed, high capacitance. Tolerance: 10, 20% Capacitance ranges (uf): 50V / 100V / 200V / 500V CNC53PE 1.8 - 12 / 1.0 - 10 / 0.27 - 2.70 / 0.10 - 1.0 CNC54PE 3.3 - 22 / 1.8 - 15 / 0.47 - 3.9 / 0.22 - 1.5 CNC55PE 6.8 - 39 / 2.7 - 33 / 1.0 - 10 / 0.33 - 3.3 CNC56PE 10 - 68 / 4.7 - 47 / 1.8 - 12 / 0.47 - 5.6 Size (max. mm.): 21.6 x 16.6 x H; H = 4mm (case A), 8mm (case B), 12mm (case C), 16mm (case D) Operating temperature range (°C.): -55 to +125	567.99.390 Ind. D	SMD (variant PE)	• EUROFARAD	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	0603, 0805, 1206, 1210, 1812, 2220 (TYPE I)	Ceramic chips, type I, low voltages Type (size); Capacitance ranges (pF); Voltage (16, 25, 50, 100V) CEC14S (0603); 10-1000; 10-680; 1-560; 1-330 CEC2S (0805); 10-2700; 10-2200; 1-1800; 1-1200 CEC12S (1206); 10-6800; 10-6200; 1-5600; 1-3900 CEC4S (1210); 10-15000; 10-13000; 10-12000; 10-6800 CEC6S (1812); 100-33000; 100-30000; 100-22000; 100-12000 CEC7S (2220); 470-68000; 470-56000; 470-47000; 470-27000 Operating temperature range (°C.): -55 to +125	EFD 761.10.390, ESCC 3009/003, /022, /004, /005, /006	CHIP	• EUROFARAD	PartType Standardization
2	0603, 0805, 1206, 1210, 1812, 2220 (TYPE II)	Ceramic chips, type II, low voltages Type (size); Capacitance ranges (pF); Voltage (16, 25, 50, 100V) CNC14S (0603); 0,39-39; 0,39-33; 0,01-22; 0,01-12 CNC2S (0805); 6,8-220; 6,8-150; 0,1-100; 0,68-33 CNC12S (1206); 10-390; 10-270; 0,47-180; 0,47-120 CNC4S (1210); 33-820; 33-560; 2,2-390; 2,2-220 CNC6S (1812); 100-1800; 100-1200; 3,9-820; 3,9-470 CNC7S (2220); 150-3900; 150-2200; 22-1800; 22-1000 Operating temperature range (°C.): -55 to +125	EFD 711.07.390, ESCC 3009/008, /023, /009, /010, /011	CHIP	• EUROFARAD	PartType Standardization
1	0805, 1206, 1210, 1812, 2220 (TYPE I)	Ceramic Dielectric, Multilayer, Fixed, Type I Case; Capacitance Range(pF); Rated Volt(V); Case Size (max mm); Tolerances (%) 0805; 4.7 - 390; 50-100; 2.3 x 1.45 x 1.3; 0.5, 1, 2, 5 ,10 1206; 10 - 1000; 50-100; 3.6 x 1.9 x 1.8; 1, 2 , 5, 10 1210; 22 - 1500; 50-100; 3.6 x 2.8 x 1.8; 1, 2 , 5, 10 1812; 100 - 2700; 50-100; 5 x 3.6 x 1.8; 1, 2 , 5, 10 2220; 470 - 6800; 50-100; 6.2 x 5.5 x 1.8; 1, 2 , 5,10 (For appicable Exx Series and maximum capacitance value within each rated voltage and for each case size refer to Tables 1a of Detailed Specifications) Variants 03 (AgPdPt Pads) and 06 (SnPb) Temperature Coefficient (10-6/°C.): ± 30 Operating Temperature Range (°C.):-55 to +125	ESCC 3009/003, /022, /004, /005, /006	CHIP	• AVX - DIVISION TPC	Type I ranges modified, i.e. withdrawal of high end of range covered with ceramics under non-conformance through NCCS 2CTPC101 as decided during ESA / CNES Executive meeting held on the 6th of October 2011. Availability of a replacement ceramic expected by mid 2012.
1	0805, 1206, 1210, 1812, 2220 (TYPE II)	Ceramic Dielectric, Multilayer, Fixed, Type II Case; Capacitance Range; Rated Volt(V); Case Size (max mm); Tolerances (%) 0805; 820pF - 100nF; 25-50-100; 2.3 x 1.45 x 1.3; 5, 10, 20 1206; 2.2nF - 220nF; 25-50-100; 3.6 x 1.9 x 1.8; 5, 10, 20 1210; 3.9nF - 470nF; 25-50-100; 3.6 x 2.8 x 1.8; 5, 10, 20 1812; 6.8nF - 1uF; 25-50-100; 5 x 3.6 x 1.8; 5, 10, 20 2220; 18nF - 2.2uF; 25-50-100; 6.2 x 5.5 x 1.8; 5, 10, 20 (For appicable Exx Series and maximum capacitance value within each rated voltage and for each case size refer to Tables 1a of Detailed Specifications) Variants 03 (AgPdPt) and 06/07 (SnPb) Temperature Coefficient (10-6/°C.): ± 30 Operating Temperature Range (°C.):-55 to +125	3009/008, /023, /009, /010, /011	CHIP	• AVX - DIVISION TPC	Harmonization for Ceramic Cap. entries

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	32101801 Type I	Ceramic Dielectric, Multilayer, Fixed, Type I Case Size Capacitance Range. (pF) Rated Volt. (V) Case Size (max mm) Tolerance (%) 0805 10.0 - 1000 (E12 series) 50-100-200 2.3x1.55x1.3 1 1206 10.0 - 3300 (E12 series) 50-100-200 3.5x1.9x1.6 1 1210 10.0 - 6800 (E12 series) 50-100-200 3.5x2.8x1.8 1 1812 220 - 18000 (E12 series) 50-100-200 4.8x3.5x1.8 1 (For the maximum capacitance value within each rated voltage and for each case size refer to Table 2A of Detail Specification) Temperature Coefficient (10-6/°C.): ± 30 Operating Temperature Range (°C.):-55 to +125	S02A 0100	Chip	• SYFER TECHNOLOGY Ltd.	
2	32101801 Type II	Ceramic Dielectric, Multilayer, Fixed, Type II Case Size Capacitance Range. (pF) Rated Volt. (V) Case Size (max mm) Tolerance (%) 0805 100 - 47000 (E6 series) 50-100-200 2.3x1.55x1.3 10 1206 680 - 100000 (E6 series) 50-100-200 3.5x1.9x1.6 10 1210 1000 - 220000 (E6 series) 50-100-200 3.5x2.8x1.8 10 1812 3900 - 470000 (E6 series) 50-100-200 4.8x3.5x1.8 10 (For the maximum capacitance value within each rated voltage and for each case size refer to Table 2A of Detail Specification) Temperature Coefficient (%): ± 20 (Vt= 0V), +20/-30 (Vt= nominal voltage) Operating Temperature Range (°C.):-55 to +125	S02A 0100	Chip	• SYFER TECHNOLOGY Ltd.	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	CSR09	Tantalum Solid Electrolyte Capacitance Range (µF) / Tol. (±%) / Rated Volt. (V) / Dimensions (max mm) 0.047 to 0.18 / 5/10 / 75 / Size A1 7.14 x Dia 2.51 0.22 to 1.2 / 5/10 / 75 / Size B1 10.3 x Dia 3.76 0.22, 0.27 / 5/10 / 50 / Size A1 7.14 x Dia 2.51 1.5,1.8 / 5/10 / 50 / Size B1 10.3 x Dia 3.76 0.33,0.39,0.47 / 5/10 / 35 / Size A1 7.14 x Dia 2.51 2.2,2.7 / 5/10 / 35 / Size B1 10.3 x Dia 3.76 0.56 to 1.00 / 5/10 / 20 / Size A1 7.14 x Dia 2.51 3.3 to 6.8 / 5/10 / 20 / Size B1 10.3 x Dia 3.76 1.8, 2.0 / 5/10 / 10 / Size A1 7.14 x Dia 2.51 10.0 to 15.0 / 5/10 / 10 / Size B1 10.3 x Dia 3.76 Operating temperature range (°C) : -55 to +125	MIL-C-39003/2	Axial	• KEMET ELECTRONICS Corp.	
1	CSR13	Tantalum Solid Electrolyte Capacitance Range (µF) Tol. (±%) Rated Volt. (V) Case Size 0.1 to 15 (µF) 5,10 (±%) 50 (V) Case A, B, C, D 0.0047 to 22 (µF) 5,10 (±%) 75 (V) Case A, B, C, D 5.6 to 47 (µF) 5,10 (±%) 35 (V) Case B, C, D 3.9 to 220 (µF) 5,10 (±%) 10 (V) case A, B, C, DDimensions (max mm) : Case A : 10.72 x 3.84 DIA Case B : 15.49 x 5.11 DIA Case C : 20.88 x 7.75 DIA Case D : 23.42 x 9.33 DIA Operating temperature range (°C) : -55 to +125	MIL-PRF-39003/1	Axial	• KEMET ELECTRONICS Corp.	-
1	CSR23	Tantalum Solid Electrolyte Capacitance Range (µF) / Tol. (±%) / Rated Volt. (V) / Case Size 1.2 to 39 / 10/20 / 50 / Case A, B, C, D 1.8 to 68 / 10/20 / 35 / Case A, B, C, D 2.7 to 180 / 10/20 / 20 / Case A, B, C, D 6.8 to 560 / 10/20 / 10 / Case A, B, C, D Dimensions (max mm) : Case A : 10.72 x 3.84 DIA Case B : 15.49 x 5.11 DIA Case C : 20.88 x 7.75 DIA Case D : 23.42 x 9.33 DIA Operating temperature range (°C) : -55 to +125	MIL-PRF-39003/3	Axial	• KEMET ELECTRONICS Corp.	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	CSS33	Tantalum Solid Electrolyte Capacitance Range (µF) / Tol. (±%) / Rated Volt. (V) / Case Size 1.2 to 39 / 10 / 50 / Case A, B, C, D 1.8 to 68 / 10 / 35 / Case B, C, D 2.7 to 180 / 10 / 20 / Case A, B, C, D 6.8 to 560 / 10 / 10 / Case A, B, C, D Dimensions (max mm) : Case A : 10.72 x 3.84 DIA Case B : 15.49 x 5.11 DIA Case C : 20.88 x 7.75 DIA Case D : 23.42 x 9.33 DIA Operating temperature range (°C) : -55 to +125.	MIL-PRF-39003/10	Axial	• KEMET ELECTRONICS Corp.	SEE QPL FOR FAILURE RATE C VALUES
1	CTC21	Tantalum Solid Electrolyte Capacitance range (µF) / Tol. (± %) / Rated Volt. (V) / Dimensions (max mm) 10 / 10 / 63 / 11.5 x 9.5 x 5 22 / 10 / 63 / 11.5 x 13 x 6 15 / 10 / 50 / 11.5 x 9.5 x 5 22 / 10 / 40 / 11.5 x 9.5 x 5 47 / 10 / 40 / 11.5 x 13 x 6 33 / 10 / 25 / 11.5 x 9.5 x 5 68 / 10 / 25 / 11.5 x 13 x 6 47 / 10 / 20 / 11.5 x 9.5 x 5 100 / 10 / 20 / 11.5 x 13 x 6 68 / 10 / 16 / 11.5 x 9.5 x 5 150 / 10 / 16 / 11.5 x 13 x 6 100 / 10 / 10 / 11.5 x 9.5 x 5 220 / 10 / 10 / 11.5 x 13 x 6 150 / 10 / 6.3 / 11.5 x 9.5 x 5 330 / 10 / 6.3 / 11.5 x 13 x 6 Operating temperature range (°C) : -55 to +125	ESCC 3012/002	SMD	• FIRADEC	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	CTC21E	Tantalum Solid Electrolyte Capacitance range (µF) Tol. (± %) Rated Volt. (V) Dimensions (max mm) 22 10 50 11.5 x 9.5 x 5 47 10 50 11.5 x 13 x 6 33 10 40 11.5 x 9.5 x 5 68 10 40 11.5 x 13 x 6 47 10 25 11.5 x 9.5 x 5 100 10 25 11.5 x 13 x 6 100 10 20 11.5 x 9.5 x 5 220 10 20 11.5 x 13 x 6 150 10 16 11.5 x 9.5 x 5 330 10 16 11.5 x 13 x 6 220 10 10 11.5 x 9.5 x 5 470 10 10 11.5 x 13 x 6 330 10 6.3 11.5 x 9.5 x 5 680 10 6.3 11.5 x 13 x 6 Operating temperature range (°C) : -55 to +125	ESCC 3012/003	SMD	• FIRADEC	Bigger anodes require further attention during parts mounting
1	TAJ	Tantalum Solid Electrolyte Capacitance value (µF) Tol. (±%) Rated Volt. (V) Case size 1.0 10 50 C 1.0 10 35 B 2.2 10 35 C 10 10 35 D 22 10 35 E 1.5 10 16 A 4.7 10 16 B 10 10 16 C 100 10 16 E 220 10 10 E Size A (max mm) : 3.4 x 1.8 x 1.8 Size B (max mm) : 3.7 x 3.0 x 2.1 Size C (max mm) : 6.2 x 3.4 x 2.8 Size D (max mm) : 7.5 x 4.5 x 3.1 Size E (max mm) : 7.5 x 4.5 x 4.3 Gold plated termination. Operating temperature range (°C) : -55 to +125	ESCC 3012/001	SMD	• AVX LTD	
2	TES low ESR	Tantalum Solid Electrolyte, Low ESR Capacitance value Tol. Rated Volt. (Case size) (µF) (±%) (V) 1.0 10 25(A) 4.7 10 16(B)4.7 10 50(D)10 10 10(A), 20(C), 35(C,D)22 10 6.3(A), 16(C), 35(D)33 10 16(C), 20(D), 25(D), 35(E)47 10 10(C), 25(D)100 10 6.3(C), 16(D)150 10 10(E), 16(E)220 10 10(D,E)330 10 6.3(D), 10(E)Size A (max mm) : 3.2 x 1.6 x 1.6 Size B (max mm) : 3.5 x 2.8 x 1.9 Size C (max mm) : 6.0 x 3.2 x 2.6 Size D (max mm) : 7.3 x 4.3 x 2.9 Size E (max mm) : 7.3 x 4.3 x 4.1 Gold plated termination. Operating temperature range (°C) : -55 to +125	Mfr DataSheet (6.0) + LAT and screening iaw ESCC 3012	SMD	• AVX Czech Republic SRO	New datasheet of TES issued to reflect modification and link to ESCC3012/004 details specification

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	CT79	Tubular, Porous, Tantalum Cathode and Anode, Gelled Electrolyte Rated Voltage: 16 to 125 V Capacitance range: as per Table 1(a) of Detail specification Case sizes A, B, C and D Operating temperature range: -55 to +125 °C	ESCC 3003/005	Size A, B, C, D	• FIRADEC	
2	CT79, CT79E	Non-Solid Tantalum, gel Rated Voltage 6.0 to 125 V Capacitance range 2.7 to 2200 uF Operating Temperature range: -55 to +125 °C	ESCC 3003/005	A, B, C & D package style	• FIRADEC	Also available i.a.w. CCC specification 30202-801
2	ST79	Capacitors Fixed, Tubular, Porous Tantalum Cathode and Anode, gelled Electrolyte Voltage (V) Capacitance (uF) 60 560 60 700 63 500 75 330 75 470 100 150 100 220 Tolerance: 10% Case size: C (variant 04), D (variant 05) Dimensions max. (mm): 34 (length), 10 (diam.) Operating temperature range: -55 to +125 °C	ESCC 3003/006	Axial	• FIRADEC	125 V high capacitance values shall be avoided

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	HT86PS	Plastic Film Dielectric, High Voltage. Cap. Range(nF) Tol.(±%) Rated Volt.(V) 0.68 to 15 10 20000 1.5 to 33 10 15000 3.3 to 68 10 12500 1.0 to 100 10 10000 2.2 to 220 10 7500 6.8 to 470 10 5000 15 to 1000 10 3500 15 to 1500 10 2500 33 to 2200 10 1500 Temperature Coefficient: Temperature (°C.) Capacitance change (%) +22 to -55 -3.0 min +22 to +125 +10 max Size (max mm):36x11x5 to 106x51x15 depending on Voltage/Capacitance Value Operating Temperature Range (°C) : -55 to +125	ESCC 3006/022	Axial	• EUROFARAD	
1	PM94S	Self-healing metalised film dielectric Capacitance Value (uF) Rated Voltage (V) Tolerance Available sizes 0.56 - 12 100 10 % 01, 02, 03, 04 0.22 - 4.7 250 10 % 01, 02, 03, 04 0.1 - 1.8 400 10 % 01, 02, 03, 04 Size 01 (max mm) : 10.7 x 10.7 x B (6, 8, 10, 12, 14, 15 mm depending on cap. value) Size 02 (max mm) : 15.5 x 11.5 x B (6, 8, 10, 12, 14, 15 mm depending on cap. value) Size 03 (max mm) : 16.5 x 15.5 x B (6, 8, 10, 12, 14, 15 mm depending on cap. value) Size 04 (max mm) : 18.5 x 17.0 x B (6, 8, 10, 12, 14, 15 mm depending on cap. value)	ESCC 3006/024	SMD	• EUROFARAD	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	38999 Series I	Circular, Bayonet Coupling, Removable Crimp Contacts, scoop-proof, based on MIL-C-38999 Series I. Range: 6, 13, 22, 37, 55, 66, 79, 100, 128 contacts size #22. 3, 6, 10, 19, 26, 32, 41, 53, 61 contacts size #20. Other arrangements with contact sizes: 16, 12, 8. For contact sizes refer to ESCC 3401/058. Receptacle and plug shell sizes:09,11,13,15,17,19,21,23,25. Contact sizes Rating (A) Contact sizes Rating (A) 08 46.0 12 23.0 16 13.0 20 7.5 22 5.0 Operating Temperature Range (°C): -65 to +200	ESCC 3401/052	AS PER SPEC.	• SOURIAU	
1	38999 Series II	Circular, Bayonet Coupling, Low Profile, Removable Crimp Contacts, Based on MIL-C-38999 Series II. Range: 6, 13, 22, 37, 55, 66, 79, 100, 128 contacts size #22. 3, 6, 10, 18, 26, 32, 41, 55, 61 contacts size #20. Other arrangements with contact sizes: 20, 16, 12. For contact sizes refer to ESCC 3401/045. Receptacle and plug shell sizes:08,10,12,14,16,18,20,22,24. Contact sizes Rating (A) Contact sizes Rating (A) 12 23.0 16 13.0 20 7.5 22 5.0 Operating Temperature Range (°C): -65 to +200	ESCC 3401/044	AS PER SPEC.	• SOURIAU	
1	38999 Series III	Circular, Triple-start, Self Locking Coupling, Scoop-proof, Removable Crimp Contacts, based on MIL-C-38999 Series III Range: 6, 13, 22, 37, 55, 66, 79, 100, 128 contacts #22 3, 6, 10, 19, 26, 32, 41, 53, 61 contacts #20 Other arrangements with contact sizes: 20, 16, 12, 8, 4. For contact sizes refer to ESCC 3401/058, /066, /070. Contact sizes Rating (A) Contact sizes Rating (A) 4 80.0 8 46.0 12 23.0 16 13.0 20 7.5 22 5.0 Operating Temperature Range (°C): -65 to +200	ESCC 3401/056	AS PER SPEC.	• SOURIAU	
1	38999 SeriesIII Hermetic receptacle	Circular, Hermetic Receptacle, Scoop-proof, non-removable solder contacts, based on MIL-C-38999 Series III. Range: 6, 13, 22, 37, 55, 66, 79, 100, 128 contacts size#22 3, 6, 10, 19, 26, 32, 41, 53, 61 contacts size#20 Contact size Rating (A) Contact size Rating (A) 20 7.5 22 5.0 Operating Temperature Range (°C): -65 to +200	ESCC 3401/057	AS PER SPEC.	• SOURIAU	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	D*M (Solder, PCB and Wire Wrap)	Rectangular, non removable solder bucket, PCB and wire-wrap contacts and removable coaxial and power contacts. Range: 9, 15, 25, 37 and 50 contacts size# 20 15, 26, 44, 62 and 78 contacts size# 22 Coaxial Contact Arrangements: contact variants 01 to 20 (ITT Cannon). Power Contact Arrangements: contact variants 01 to 12 (ITT Cannon). Gold-plated non-magnetic shells Contact size Rating (A) Contact size Rating (A) 20 7.5 22 3.0 Operating Temperature Range (°C): -55 to +125	ESCC 3401/001	AS PER SPEC.	• C&K Components • SOURIAU	Souriau is not qualified for Coaxial and Power Contacts
1	D*MA (Crimp)	Rectangular, removable crimp contact. Range: 9, 15, 25, 37, 50 contacts size# 20 15, 26, 44, 62, 78 contacts size# 22 For contact sizes refer to ESCC 3401/005; for the corrisponding saver and for its own contacts refer to ESCC 3401/021 and ESCC 3401/020 respectively. Gold-plated non-magnetic shells Contact size Rating (A) Contact size Rating (A) 20 7.5(AWG 20to24) 20 3.0(AWG 26and28) 20 7.5(AWG 18and20) 22 5.0 Operating Temperature Range (°C): -55 to +125	ESCC 3401/002	AS PER SPEC.	• C&K Components • SOURIAU	
1	MTB	Single in line, microminiature. Shell size: 5 through 81 contacts single in line Terminations: Wire sizes AWG 26 and 28 and AWG 25 uninsulated solid gold-plated wire Rating (A): 2.5 with AWG 26 and uninsulated wire 1.5 with AWG 28 Operating Temperature Range (°C): -55 to +125	ESCC 3401/031	AS PER SPEC.	• C&K Components	Supplied with uninsulated or already fitted wires; length of wires shall be specified by the orderer

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	HE801/HPD	For PCB, removable contacts, crimp, wire-wrap, solder type, saver type. Range: 2 rows: 17, 29, 41, 53, 65, 72, 84, 96, 120 contacts 3 rows: 62, 8 0, 98, 160 contacts Contact Type: 3401/017 Crimp-type. 3401/018 Wire-wrap type. 3401/019 Solder/Saver type(wire sizes 22 to 26). Rating (A): 5.0 (1 contact,AWG 22) 1.5 (>31 contacts,AWG 22) Operating Temperature Range (°C): -55 to +125	ESCC 3401/016	AS PER SPEC.	• HYPERTAC S.A. • HYPERTAC LTD	
1	IHD INTERPOSER	PCB/PCB and PCB/MCM connections Pad Size (min.) : 0,8 mm Standard Pitch : 1.905 mm between contacts and 1.524 mm between rows Standard Height : 7.8 mm RFF contacts Contact Resistance: <25 mohm Nominal current: 1 A Operating temperature range: -55 to +125 °C	ESCC 3401/076	N/A	• HYPERTAC	
1	KMC	For PCB, non removable solder and wire wrap contacts and connector saver. Range: 3 rows 26, 44, 62, 80, 98, 144 contacts Contact Type: Solder and Wire-wrap for AWG 28 wires and PCB Rating (A): 2.0 (1 to 3 used contacts), 0.9 (4 to 26 used contacts) and 0.5 (over 27 used contacts) Operating Temperature Range (°C): -55 to +125	ESCC 3401/039	AS PER SPEC.	• HYPERTAC S.A.	
1	MHD	For PCB, non removable solder through board and surface mount contacts and connector saver. Range: 4 rows 52, 100, 152, 200, 252, 300, 352 and 400 contacts Contact Type: Solder through board and surface mount for PCB Rating (A): 2.0 (1 to 3 used contacts), 0.9 (4 to 26 used contacts) and 0.5 (over 27 used contacts) Operating Temperature Range (°C): -55 to +125	ESCC 3401/065	AS PER SPEC.	• HYPERTAC S.A.	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	ACB1	Triaxial databus connector for MIL-STD-1553 harnesses. Bayonet & Thread coupling. Plug and Bulkhead connector types. Straight and Rightangle versions. Frequency range: up to 1 MHz Working Voltage: 200 Vrms Rated Current (contact): 1A Operating temperature range: -55 to +150 °C	ESCC 3401/079	Coaxial	• AXON'CABLE	
1	SMA	RF coaxial, 50 ohms. 3402/001 male contacts (plug), 3402/002 female contacts (receptacle), 3402/003 adapters. Crimp or solder contacts for flexible and semi-rigid cables, contacts for micro-strip. Types coverede by similarity : hermetically sealed receptacle; Amagnetic stainless steel; Operating temperature range as per det. Spec.	ESCC 3402/001 ESCC 3402/002 ESCC 3402/003	AS PER SPEC.	• RADIALL	
1	SMA 2.9	RF coaxial, 50 ohms, DC to 40 GHz 3402/021 male contacts (plug) 3402/022 female contacts (receptacle) 3402/023 adapters and connecting pieces Type variants as per Table 1(a) of Detail Specifications Operating temperature range: -65 / +165 °c	ESCC 3402/021 ESCC 3402/022 ESCC 3402/023	AS PER SPEC.	• RADIALL	
2	SMP	RF Coaxial Connectors, 50 ohms, adaptor and connecting pieces Frequency limit up to 20 GHz Variant 01: limited detent receptacle for PCB CMS (pin contact) Variant 02: straight female-female adapter (10.3 mm) Variant 03: straight female-female adapter (5.69 mm) Variant 04: right angle receptacle for PCB, limited detent, solder type (pin contact) Operating temperature range: -65 / +165 °C	RAD-DET-CONN-019	AS PER SPEC.	• RADIALL	
2	TNC	RF coaxial type TNC connectors male or female contact and adptators 50W Max working voltage : 500Vrms, power : 75-120W, frequency : 0-18GHz Operating temperature range: -55 to +105 °C	ESCC 3402/008-009-010	TNC connector	• RADIALL	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	MDM	Rectangular, non removable wired contacts Range: 9, 15, 21, 25, 31, 37, 51 contacts size. Terminations: Wire sizes AWG 26 and 28 and AWG 25 uninsulated solid gold-plated wire Rating (A): 2.5 with AWG 26 and uninsulated wire 1.5 with AWG 28 Nickel Plated Shells For the corrisponding saver refer to ESCC 3401/041. Operating Temperature Range (°C): -55 to +125	ESCC 3401/029	AS PER SPEC.	• C&K Components	Supplied with uninsulated or already fitted wires; length of wires shall be specified by the orderer
2	MDSA	Rectangular, non removable wired contacts Range: 9, 15, 21, 25, 31, 37, 51 contacts size. Terminations: Single wire ESCC/3901/013 variant 01 (AWG28) Single wire ESCC/3901/013 variant 02 (AWG26) Single wire ESCC/3901/002 variant 61 (AWG28) Single wire ESCC/3901/002 variant 56 (AWG26) AWG 25 uninsulated solid gold-plated wire Single wire M22759/33-26 as per MIL-DTL-83513 Rating (A): 2.5 with AWG 26 and uninsulated wire 1.5 with AWG 28 Nickel or Gold Plated Shells For the corrisponding saver refer to ESCC 3401/041. Operating Temperature Range (°C): -55 to +125	Axon 05039-ST-01 Issue A	AS PER SPEC.	• AXON'CABLE	
2	Micro Comp	Electrical, rectangular, composite microminiature Operating temperature Range: 0 to +175 °C	8MC/001, 8MC/002, 8MC/003, 8MC/004	MICROMINIATURE	• SOURIAU	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	D*J	Filtered, rectangular, non-removable solder bucket contacts, filtering. Range: 9, 15, 25, 37, 50 contacts Filter type M (medium frequency) only Solder buckets terminations Rated Current: 5 Adc Operating Temperature Range (C): -55 to +125	CSFR 165	AS PER SPEC.	• C&K Components	New component

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	T1507	Crystal units in metal holder Frequency Range: 2,5 - 20 MHz Operating temperature range depending on type variant	ESCC 3501/019	TO8 CAN	• KVG Quartz Crystal Technology	
1	T1507	Crystal units in metal holder Frequency Range: 3 - 20 MHz Operating temperature range depending on type variant	ESCC 3501/019	TO8 CAN	• Rakon France	
2	T807	Crystal units in metal holder Frequency Range: 4 - 140 MHz Operating temperature range depending on type variant	ESCC 3501 /018	TO5 CAN	• KVG Quartz Crystal Technology	
1	T807	Crystal units in metal holder Frequency Range: 14 - 140 MHz Operating temperature range depending on type variant	ESCC 3501/018	TO5 CAN	• Rakon France	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	1N5416 thru 1N5418, 1N5420	Silicon, Power Rectifier, Fast Recovery. DC forward voltage (max V): 1.5 @ DC forward current (pk A): 9.0 DC reverse current (max µA): 1.0 @ DC reverse voltage (V):100,200,400,600. Switching time (ns): 150 (400 for 1N5420); IFSM=80 A (pk); Io=3.0 A (t=55°C.) Operating Temperature range (°C.): -65 to +175.	MIL-S-19500/411	AXIAL	• Sensitron Semiconductor Inc.	Sensitron spec. 7700-4091 for JANS-equivalent screening flow
1	1N5416, 1N5417, 1N5418, 1N5420	Silicon, Power Rectifier, Fast Recovery. DC forward voltage (max V): 1.5 @ DC forward current (pk A): 9.0 DC reverse current (max µA): 1.0 @ DC reverse voltage (V):100,200,400,600. Switching time (ns): 150 (400 for 1N5420); IFSM=80 A (pk); Io=2.0 A (t=55°C.) Operating Temperature range (°C.): -65 to +175.	MIL-PRF-19500/411	A248	• MICROSEMI SCOTTSDALE	Manufacturer Standardization
2	1N5416US thru 1N5418US, 1N5420US	Silicon, Power Rectifier, Fast Recovery. DC forward voltage (max V): 1.5 @ DC forward current (pk A): 9.0 DC reverse current (max µA): 1.0 @ DC reverse voltage (V):100,200,400,600. Switching time (ns): 150 (400 for 1N5420US); IFSM=80 A (pk); Io=3.0 A (t=55°C.) Operating Temperature range (°C.): -65 to +175.	MIL-PRF-19500/411	MELF	• Sensitron Semiconductor Inc.	
2	1N5550, 1N5552, 1N5554	Silicon, Power Rectifier, General Purpose. DC forward voltage(max V):1.2(1.3 for 1N5554) @DC forward current(pk A):9.0 DC reverse current(max µA):1.0 @ DC reverse voltage (V): 200, 600, 1000 Switching time (ns): 2000; IFSM= 100 A (pk); Io= 3.0 A (t=55°C.) Operating Temperature range (°C.): -65 to +175.	MIL-PRF-19500/420	A1	• MICROSEMI SCOTTSDALE	Manufacturer Standardization
1	1N5614, 1N5616, 1N5618	Silicon, Power Rectifier DC forward voltage (max V): 1.3 @ DC forward current (pk A): 3.0* DC reverse current (max Ã¦A): 0.5 @ DC reverse voltage (V): 200, 400, 600 Switching time (ns): 2000; IFSM= 30 A (pk); Io= 1 A (t=55°C.) Operating Temperature range (°C.): -65 to +175. * pulsed	MIL-PRF-19500/427	A248	• MICROSEMI SCOTTSDALE	manufacturer Standardization
2	1N5615, 1N5617(A/UN),1N5619, 1N5623	Silicon, Power Rectifier, Fast Recovery. DC forward voltage (max V): 1.6 @ DC forward current (pk A): 3.0* DC reverse current (max µA): 1.0 @ DC reverse voltage (V): 200, 600, 1000 Switching time (ns): 150, 250, 500 respectively IFSM= 25 A (pk); Io= 1 A (t=55°C.) Operating Temperature Range (°C.): -65 to +175. * pulsed	MIL-PRF-19500/429	A248	• MICROSEMI SCOTTSDALE	Manufacturer Standardization
1	1N5806U	Silicon, Power Rectifier, Switching. DC forward voltage (max V): 0.875 @ DC forward current (pk A): 1.0 DC reverse current (max uA): 1.0 @ DC reverse voltage (V):150. Switching time (ns): 25; IFSM=35 A (pk); Io=1.0 A (t=55°C.) Operating Temperature range (°C.): -55 to +125.	ESCC 5101/014	LCC2-A	• STMicroelectronics	
2	1N5806US	Silicon, Fast Recovery, Power Rectifier. DC forward voltage (max V):0.975,0.925 @DC forward current (pk A):2.5,6.0* DC reverse current (max µA): 1.0, 5.0 @DC reverse voltage (V): 150 Switching time (ns): 25, 30 respectively IFSM= 35, 125 A (pk); Io= 1.0, 3.0 respectively. Operating Temperature Range (°C.): -65 to +175. * pulsed	MIL-PRF-19500/477	D-5A	• Sensitron Semiconductor Inc.	Manufacturer Standardization. Moved to EPPL part II

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	1N5806US	Silicon, Fast Recovery, Power Rectifier. DC forward voltage (max V):0.975,0.925 @DC forward current (pk A):2.5,6.0* DC reverse current (max µA): 1.0, 5.0 @DC reverse voltage (V): 150 Switching time (ns): 25, 30 respectively IFSM= 35, 125 A (pk); Io= 1.0, 3.0 respectively. Operating Temperature Range (°C.): -65 to +175. * pulsed	MIL-PRF-19500/477	D-5A	• MICROSEMI SCOTTSDALE	-
1	1N5811U	Silicon, Power Rectifier, Switching. DC forward voltage (max V): 0.875 @ DC forward current (pk A): 4.0 DC reverse current (max uA): 5.0 @ DC reverse voltage (V):150. Switching time (ns): 30; IFSM=125 A (pk); Io=6.0 A (t=55°C.) Operating Temperature range (°C.): -55 to +125.	ESCC 5101/013	LCC2-B	• STMicroelectronics	
2	1N5811US	Silicon, Fast Recovery, Power Rectifier. DC forward voltage (max V):0.975,0.925 @DC forward current (pk A):2.5,6.0* DC reverse current (max µA): 1.0, 5.0 @DC reverse voltage (V): 150 Switching time (ns): 25, 30 respectively IFSM= 35, 125 A (pk); Io= 1.0, 3.0 respectively. Operating Temperature Range (°C.): -65 to +175. * pulsed	MIL-PRF-19500/477	D-5B	• Sensitron Semiconductor Inc.	Manufacturer Specification
2	1N5811US	Silicon, Fast Recovery, Power Rectifier. DC forward voltage (max V):0.975,0.925 @DC forward current (pk A):2.5,6.0* DC reverse current (max µA): 1.0, 5.0 @DC reverse voltage (V): 150 Switching time (ns): 25, 30 respectively IFSM= 35, 125 A (pk); Io= 1.0, 3.0 respectively. Operating Temperature Range (°C.): -65 to +175. * pulsed	MIL-PRF-19500/477	D-5B	• MICROSEMI SCOTTSDALE	-
1	1N5819U	Silicon, Power Rectifier, Schottky. DC forward voltage (max V): 0.55 @ DC forward current (pk A): 1.0 DC reverse current (max uA): 25.0 @ DC reverse voltage (V):40. IFSM=50 A (pk); Io=1.0 A (t=55°C.) Operating Temperature range (°C.): -55 to +125ºC	ESCC 5106/021	LCC2-B	• STMicroelectronics	Change to EPPL part I
2	1N5819UR-1	Silicon, Hermetic, Schottky barrier. DC forward voltage (max V): 0.8 @max. forward current 3.1 A (pulsed) IFSM= 24 A(pk); Io= 1.0 A at Tec= +55°C. Operating Temperature Range (°C.): -65 to +125	MIL-PRF-19500/586	DO-213AB	• MICROSEMI LAWRENCE	Manufacturer Specification. Moved to EPPL II
1	1N5822U	Silicon, Rectifier, Schottky barrier. DC forward voltage (max V): 0.7 @max. forward current 9.4 A* (pk) IFSM= 80 A(pk); Io= 3.0 A at Tec=+55°C. Operating Temperature Range (°C.): -55 to +125 *pulsed	ESCC 5106/020	LCC2-B	• STMicroelectronics	Change to EPPL part I
2	1N5822US	Silicon, Rectifier, Schottky barrier. DC forward voltage (max V): 0.7 @max. forward current 9.4 A* (pk) IFSM= 80 A(pk); Io= 3.0 A at Tec=+55°C. Operating Temperature Range (°C.): -65 to +150 *pulsed	MIL-PRF-19500/620	D-5B	• MICROSEMI LAWRENCE	Manufacturer Standardization. Moved to EPPL II
1	BYV52-200	Single, Ultra Fast Power Rectifier, 200 V, 30 A Operating Temperature range : -55 to +150 °C Storage Temperature Range : -55 to +150 °C Dimensions (mm, max.) : 20.07 x 13.59 x 6.3	ESCC 5103/030	TO254	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	BYV54-200	Single, Ultra Fast Power Rectifier, 200 V, 60 A Operating Temperature range : -55 to +150 °C Storage Temperature Range : -55 to +150 °C Dimensions (mm, max.) : 20.07 x 13.59 x 6.3	ESCC 5103/031	TO254-AA	• STMicroelectronics	
1	BYW81-200	Dual, Ultra Fast Power Rectifier200 V, 2x15 A Operating Temperature range : -55 to +150 °C Storage Temperature Range : -55 to +150 °C Available in Common Anode, Common Cathode and Doubler configuration Dimensions (mm, max.) : 20.07 x 13.59 x 6.3	ESCC 5103/029	SMD .5	• STMicroelectronics	
1	STPS20H100	Dual, Power Schottky, 100 V, 2x20 A Operating Temperature Range : -55 to +175 °C Storage Temperature Range : -55 to +175 °C Available in Common Anode, Common Cathode and Doubler configuration Dimensions (mm, max.) : 20.07 x 13.59 x 6.3	ESCC 5106/016	SMD .5	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	1N4099UR-1 thru 1N4135UR-1	Silicon, Voltage regulator, Low noise. DC forward voltage (max V): 1.1 @max. forward current : 200 mA Regulator voltage (nom V): 6.8 to 100 @Iz=250 uA dc Voltage tolerance: ± 5% Power (W): 0.5 at Tec= 125°C. Operating Temperature Range (°C.): -65 to +175	MIL-PRF-19500/435	DO-213AA	• MICROSEMI LAWRENCE	Manufacturer Standardization
1	1N4464 thru 1N4496	Silicon, Voltage Regulator. DC forward voltage (max V): 1.5 @max. forward current : 1 A Nominal Zener volt. (V): 9.1 - 200 @ Nom. Iz (mA): 28.0 - 1.2 Zener tolerance (V): 0.35 - 10.0 Power (W): 1.5 Operating Temperature Range (°C.): -55 to +175	MIL-PRF-19500/406	A1	• MICROSEMI SCOTTSDALE	Manufacturer Standardization
1	1N4954 thru 1N4992	Silicon, Voltage Regulator. DC forward voltage (max V): 1.5 @max. forward current : 1 A Nominal Zener volt. (V): 6.8 - 270 @ Nom. Iz (mA): 175.0 - 5.0 Voltage Regulation (V): 0.7 - 25.0 Power (W): 5.0 at Tl= +65°C. Operating Temperature Range (°C.): -55 to +175	MIL-PRF-19500/356	A248	• MICROSEMI SCOTTSDALE	Manufacturer Standardization
1	1N6309 thru 1N6319	Silicon, Zener, Voltage regulator, Solid glass noncavity constr. DC forward voltage(max V):1.4 @max If = 1 A* dc Nom. Vz (V): 2.4 to 6.2 @ Nom. Iz (mA): 20 Zener tolerance: ± 5% Power (W): 0.5 at Tl=+75°C. Operating Temperature Range (°C.): -65 to +175 *pulsed	MIL-PRF-19500/533	DO-35	• MICROSEMI LAWRENCE	Manufacturer Standardization
1	1N6309US thru 1N6319US	Silicon, Zener, Voltage regulator, Solid glass noncavity constr. DC forward voltage(max V):1.4 @max If = 1 A* dc Nom. Vz (V): 2.4 to 6.2 @ Nom. Iz (mA): 20 Zener tolerance: ± 5% Power (W): 0.5 at Tec=+125°C. Operating Temperature Range (°C.): -65 to +175 *pulsed	MIL-PRF-19500/533	SMD	• MICROSEMI LAWRENCE	Manufacturer Standardization
1	1N6320 thru 1N6336	Silicon, Zener, Voltage Regulator, Solid glass noncavity constr. DC forward voltage (max V): 1.4 @max. forward current : 1 A* dc Nominal Zener volt. (V): 6.8 - 33.0 @ Nom. Iz (mA): 20.0 - 3.8 Zener tolerance: ± 5% Power (W): 0.5 at Tl= +75°C. Operating Temperature Range (°C.): -65 to +175 *pulsed	MIL-PRF-19500/533	DO-204	• MICROSEMI SCOTTSDALE	Manufacturer Standardization
1	1N6320US thru 1N6336US	Silicon, Zener, Voltage Regulator, Solid glass noncavity constr. DC forward voltage (max V): 1.4 @max. forward current : 1 A* dc Nominal Zener volt. (V): 6.8 - 33.0 @ Nom. Iz (mA): 20.0 - 3.8 Zener tolerance: ± 5% Power (W): 0.5 at Tl= +75°C. Operating Temperature Range (°C.): -65 to +175 *pulsed	MIL-PRF-19500/533	MELF	• MICROSEMI SANTA ANA	Manufacturer Standardization

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	1N4568AUR-1	Silicon, Low level, Voltage-reference. Nominal Zener Voltage (V): 6.4 @max. forward current (mA): 0.5±0.01 to 4.0±0.01 Zener tolerance: ±5% Power (W): 0.475 at Ta=+25°C. Operating Temperature Range (°C.): -65 to +175	MIL-PRF-19500/452	DO-213AA	• MICROSEMI LAWRENCE	Manufacturer Standardization
1	1N4614UR-1 thru 1N4627UR-1	Silicon, Low-noise Voltage regulator. DC forward voltage (max V): 1.1 @max. forward current 200 mA dc Regulator voltage (max V): 1.8 to 6.2 @Iz= 250 uA Voltage tolerance: ±5% Power (W): 0.5 at Tec=+125°C. Operating Temperature Range (°C.): -65 to +175	MIL-S-19500/435	DO-213AA	• MICROSEMI LAWRENCE	Manufacturer Standardization

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	BAS 70	Microwave, Silicon, Schottky, General purpose. DC reverse volt. (min V): -70 @Ir= 10 uA Reverse current (max nA): 100 @Vr= -56 V Forward voltage (max V): 1.0 @If= 15 mA IFSM= 85 mA (pk) Total Capacitance CT (pF): 1.2 / 2.0 (BAS 70-094 single diode) 0.08 (BAS 70-B bridge) Package (max mm): BAS 70-094 DIA 1.45 x 1.35 x 1.95 (T1 package) BAS 70-B 3.60 x 3.60 x 1.60 (HPAC-140 package) Operating Temperature Range (°C.): -55 to +150	ESCC 5512/020	HPAC-140 or T1	• INFINEON TECHNOLOGIES A.G.	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	1N5629A thru 1N5665A	Silicon, transient voltage suppressor. DC reverse current (max uA):1000 to 5 @Vr =5.8 to 171 Vbr (min/max V): 6.45/7.14 to 190/210 @Ibr=10 to 1 Power (W): 1.0 Operating Temperature Range (°C.): -55 to +175	MIL-PRF-19500/500	DO-13	• MICROSEMI SCOTTSDALE	Manufacturer Standardization
2	1N6124A	Silicon, bipolar transient voltage suppressor. Reverse current leakage (max uA): 1 @Vr=27.4 to 152 Breakdown voltage (min V):53 @Ibr(mA)=30 to 5 Power (W): 2.0 Peak Power (W): 500 for 1 ms Operating Temperature Range (°C.): -55 to +175	MIL-PRF-19500/516	E (MSCUA Outline)	• MICROSEMI SCOTTSDALE	Manufacturer Standardization

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	DH 252, DH 256, DH 267, DH 292, DH294	Microwave, Silicon, Multiplier varactor. Min. Breakdown voltage (V):-45,-40,-30,-20,-15 @ Ir= 10 uA max. Reverse Current (nA): 20 @ Vr= -10V Max. Forward Voltage (V): 0.9 @ If= 10 mA Max. Total Capacitance (pF): 0.5 to 7.2 Min. Carrier Lifetime (ns): 6 to 125 @ If= 10 mA and Ir=6.0 mA Max. Snap-off Time (ps): 60 to 400 @ If= 10 mA and Vf= 10 V Max. R.F. Power Dissipation (W): 0.5 to 1.25 Operating Temperature Range (°C.): -55 to +150	ESCC 5512/016	AS PER SPEC.	• CHELTON TELECOM & MICROWAVE	
1	DH76010 thru DH760150	Microwave, Silicon, Tuning varactor, Hyper Abrupt Max. Reverse current (µA) : 10 @ Vr = -20 V. Max Forward voltage (V) : 1 @ If = 10 mA Max Total Capacitance (pF) : 0,9 - 18,30 @ Vr = -4 V, 1 MHz Min. Quality Factor : 100 - 4 @ Vr = -4 V, 1 GHz Operating Temperature Range (°C) : -55 to +150	ESCC 5512/023	M208, F27D, F30	• CHELTON TELECOM & MICROWAVE	
1	ML4310 to ML4319	Microwave, Silicon, Tuning varactor Reverse current (max uA): 10 @Vr=-25V Forward voltage (max V): 1.0 @If= 100 mA Total Capacitance (max pF): 0.55 - 5.4 Quality Factor (min Q): 2750 - 1500 Operating Temperature Range (°C.): -65 to +150	ESCC 5512/003	AS PER SPEC.	• Cobham Mal Ltd.	
1	ML4331 to ML4335	Microwave, Silicon, Tuning varactor Reverse current (max uA): 10 @Vr=-40V Forward voltage (max V): 1.0 @If= 100 mA Total Capacitance (max pF): 0.79 - 2.60 Quality Factor (min Q): 2000 - 1350 Operating Temperature Range (°C.): -65 to +150	ESCC 5512/004	AS PER SPEC.	• Cobham Mal Ltd.	
1	ML4336 to ML4343	Microwave, Silicon, Tuning varactor Reverse current (max uA): 10 @Vr=-40V Forward voltage (max V): 1.0 @If= 100 mA Total Capacitance (max pF): 3.05 - 11.40 Quality Factor (min Q): 1350 - 800 Operating Temperature Range (°C.): -65 to +150	ESCC 5512/005	AS PER SPEC.	• Cobham Mal Ltd.	
1	ML4355 to ML4365	Microwave, Silicon, Tuning varactor Reverse current (max uA): 10 @Vr=-60V Forward voltage (max V): 1.0 @If= 100 mA Total Capacitance (max pF): 2.45 - 17.10 Quality Factor (min Q): 850 - 500 Operating Temperature Range (°C.): -65 to +150	ESCC 5512/007	AS PER SPEC.	• Cobham Mal Ltd.	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	BXY42-MESA	Microwave, Silicon, PIN. Reverse current (max uA): 10 @Vr=-50V Forward voltage (max V): 1.1 @If= 100 mA Total Capacitance (max pF): 0.24 RF power (W): 0.35 (Var.-01), 0.60 (Var.-02). Minor. carrier life time (min ns): 35 @If= 10 mA Package (max mm): DIA 1.45 x 1.95 x 1.35 variant 01 DIA 1.45 x 1.35 variant 02 Operating Temperature Range (°C.): -55 to +175	ESCC 5513/017	T, T1	• INFINEON TECHNOLOGIES A.G.	
1	BXY43/44	Microwave, Silicon, PIN. Reverse current (max nA): 100 @Vr=-150V (Var.-01 to -04) @Vr=-200V (Var.-05 to -08) Forward voltage (max V): 1.0 (Var.-01 to -04) @If= 100mA 1.05 (Var.-05 to -08) @If= 100mA Total Capacitance Range (pF): 0/0.35 - 0.40/0.85 Power Dissipation (W): 0.5 Operating Temperature Range (°C.): -55 to +150	ESCC 5513/030	T, T1, Teller, Pill, FlatPack	• INFINEON TECHNOLOGIES A.G.	
1	DH50151 thru DH50157	RF/MW PIN, Ultra Fast Switching, VR=-150 V. Variants 01 to 49 of detail spec.	ESCC 5513/031	M208, F27D	• CHELTON TELECOM & MICROWAVE	
1	DH50201 thru DH50209	RF/MW PIN, Ultra Fast Switching, VR=-200 V. Variants 01 to 63 of detail spec.	ESCC 5513/033	M208, F27D	• CHELTON TELECOM & MICROWAVE	
1	DH50251 thru DH50256	RF/MW PIN, Ultra Fast Switching, VR=-250 V. Variants 01 to 36 of detail spec.	ESCC 5513/034	M208, F27D	• CHELTON TELECOM & MICROWAVE	
1	ML4610, 4617, 4618, 4619	Microwave, Silicon, PIN, Fast switching. Reverse current (max uA): 10 @Vr=-15V (Var.-01 to -25) @Vr=-100V (Var.-26 to -99) Forward voltage (max V): 1.0 @If= 100mA Total Capacitance Range (max pF): 0.2 - 1.20 Minority Carrier Lifetime (max ns): 35 @If= 10mA (Var.-01 to -25) 400 @If= 10mA (Var.-26 to -99) R.F. Power Dissipation (W): 0.2 to 3.1 Operating Temperature Range (°C.): -65 to +150	ESCC 5513/009	AS PER SPEC.	• Cobham Mal Ltd.	
1	ML4622 to ML4624	Microwave, Silicon, PIN, Fast switching. Reverse current (max uA): 10 @Vr=-150V Forward voltage (max V): 1.3 @If= 100mA Total Capacitance Range (max pF): 0.3 - 1.20 Minority Carrier Lifetime (max ns): 700 @If= 4.5 mA R.F. Power Dissipation (W): 0.2 to 3.5 Operating Temperature Range (°C.): -65 to +125 (Variant -24, -48 and -62) -65 to +150	ESCC 5513/014	AS PER SPEC.	• Cobham Mal Ltd.	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	ML4627 to ML4629	Microwave, Silicon, PIN, Fast switching. Reverse current (max uA): 10 @Vr=-200V Forward voltage (max V): 1.3 @If= 100mA Total Capacitance Range (max pF): 0.2 - 1.20 Minority Carrier Lifetime (max ns): 1200 @If= 4.5 mA R.F. Power Dissipation (W): 0.2 to 4.1 Operating Temperature Range (°C.): -65 to +125 (Variant -24, -48 and -62) -65 to +150	ESCC 5513/015	AS PER SPEC.	• Cobham Mal Ltd.	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	SFC 030	C Filter - Electromagnetic interference suppression, hermetically sealed. Capacitance Range (pF): 470 to 22000 Rated Voltage (V): 25 to 250 Rated DC Current (A): 1.0 to 5.0 Insertion Loss (dB) @ 1GHz: 34 to 68 Size (max mm): DIA 4.10 x 16.90 Operating Temperature Range (°C): -55 to + 125	ESCC 3008/020	Axial	• EUROFARAD	
1	SFC 60	C Filter - Electromagnetic interference suppression, hermetically (SCC 3008/026) and non-hermetically (SCC 3008/033) sealed. Capacitance Range (pF): 680 to 220000 Rated Voltage (V): 25 to 200 Rated DC Current (A): 10 Insertion Loss (dB) @ 1GHz: 37 to 70 Size (max mm): DIA 6 x 20 (hermetically sealed) Size (max mm): DIA 6 x 32 (non-hermetically sealed) Operating Temperature Range (°C): -55 to + 125	ESCC 3008/026 - 3008/033	Axial	• EUROFARAD	
1	SFL 100	L Filter - Electromagnetic interference suppression, hermetically sealed Capacitance Range (uF): 0.0176 to 1.6 Rated Voltage (V): 40 to 300 Rated DC Current (A): 5, 10, 15 Insertion Loss (dB) @ 1GHz: 57 to 70 Size (max mm) : DIA 9.90 x 27.30 Operating Temperature Range (°C): -55 to + 125	ESCC 3008/029	Axial	• EUROFARAD	
1	SFP 035	Pi Filter - Electromagnetic interference suppression, non hermetically sealed. Capacitance Range (pF): 3520 to 35200 Rated Voltage (V): 35 to 200 Rated DC Current (A): 10 Insertion loss (dB) @ 1GHz: 50/55 to 70/70 (*) (*) With no current applied / With current applied Size (max mm): DIA 4.1 x 25 Operating Temperature Range (°C): -55 to + 125	ESCC 3008/025	Axial	• EUROFARAD	
1	SFP 040	Pi Filter - Electromagnetic interference suppression, non hermetically sealed. Capacitance Range(pF): 750 to 44800 Rated Voltage (V): 100,200,250 Rated DC Current (A): 10 (DC/LF) Insertion loss (dB) @ 1GHz: 40/35 to 75/75 (*) (*) With no current applied / With current applied Size (max mm): DIA 5 x 31 Operating Temperature Range (°C): -55 to + 125	ESCC 3008/014	Axial	• EUROFARAD	
1	SFP 060	Pi Filter - Electromagnetic interference suppression, hermetically sealed. Capacitance Range (pF): 2400 to 89600 Rated Voltage (V): 35 to 500 Rated DC Current (A): 10 Insertion loss (dB) @ 1GHz: 65 to 75 Size (max mm): DIA 7.1 x 26.5 Operating Temperature Range (°C): -55 to + 125	ESCC 3008/021 ESCC 3008/030	Axial	• EUROFARAD	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	MGA-S	Surface mount, Thin Film Rated Voltage (VAC or VDC): 125/125, 63/125 and 32/125 by variant AC Interrupt Current (A): 50 at maximum rated voltage, power factor> 0.95 DC Interrupt Current (A): at maximum rated voltage, time constant ≤ 1 ms: Variants 01 to 10: 300 Variants 11 and 12: 50 Rated Current (VAC and VDC): 0.14 to 3.5 A by variant Operating Temperature Range, (°C): -50 to +125 (90% IR to 107% IR)	ESCC 4008/001	SMD	• Schurter AG	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	MSCI 10000	RF, Moulded, Surface mount. Inductance Range (uH) Tol. (%) Rated DC Current (mA) Q min 0.010 to 10 10 750 to 87 60 to 42 Dielectric withstanding voltage (Vrms): 200 Size (max mm): 2.67 x 2.80 x 2.16 Operating Temperature Range (°C.): -55 to +125.	ESCC 3201/008	SMD	• MICROSPIRE	
1	MSCI 12000	RF, Moulded, Surface mount. Inductance Range (uH) Tol. (%) Rated DC Current (mA) Q min 12 to 1000 10 110 to 15 37 to 12 Dielectric withstanding voltage (Vrms): 200 Size (max mm): 2.67 x 2.80 x 2.54 Operating Temperature Range (°C.): -55 to +125.	ESCC 3201/008	SMD	• MICROSPIRE	
1	MSCI 20000	RF, Moulded, Surface mount. Inductance Range (uH) Tol. (%) Rated DC Current (mA) Q min 0.010 to 1000 10 1000 to 25 75 to 30 Dielectric withstanding voltage (Vrms): 200 Size (max mm): 3.38 x 4.14 x 3.30 Operating Temperature Range (°C.): -55 to +125.	ESCC 3201/008	SMD	• MICROSPIRE	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	SESI 15	Power, Moulded, Surface mount. Inductance Range (uH) Tol. (%) Rated DC Current (mA) 1.5 to 330 10 14 to 0.74 Dielectric withstanding voltage (Vrms): 500 Size (max mm): 16.0 x 16.5 x 7.5 Operating Temperature Range (°C.): -55 to +125.	ESCC 3201/009	SMD	• MICROSPIRE	
1	SESI 9.1	Power, Moulded, Surface mount. Inductance Range (uH) Tol. (%) Rated DC Current (mA) 1 to 1000 10 6.0 to 0.2 Dielectric withstanding voltage (Vrms): 500 Size (max mm): 10.7 x 10.6 x 5.8 Operating Temperature Range (°C.): -55 to +125.	ESCC 3201/009	SMD	• MICROSPIRE	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	AT697E	SPARC V8 Processor based on ESA LEON2 FT model, produced on the AT58KRHA process using ATC18 standard cell library. 100 MHz, 85 Mips, 60kRad, Latch-up immune, SET hardned Operating temperature range: -55 / +125 °C	PS-AT697E	349 MCGA	• ATMEL	QXB variant obsolete
2	AT697F	A Sparc V8 space microprocessor designed using the LEONT2FT model.	SMD 5962-07224	MQFP256	• ATMEL	
1	AT7913E	SpaceWire remote terminal controller with LEON2FT embedded processor	SMD 5962-10A03	LGA349		
1	TSC695F	Single chip, 32 bit, SPARC Microprocessor Process SCMOS3/2RTP Operating temperature range : -55 / +125 °C	ESCC 9512/003	QFP 256	• ATMEL	Also available with SMD/5962-00540
1	TSC695FL	Single chip, 32 bit, SPARC Microprocessor Specified at 3.3 V with 12 MIPs Process SCMOS3/2RTP Operating temperature range : -55 / +125 °C	SMD/5962-03246	MQFP256	• ATMEL	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	AT60142H	3.3 V 512Kx8 SRAM High speed, rad-hard version Operating temperature range : -55 / +125 °C	SMD 5962-05208	FP36	• ATMEL	SEE behaviour should be verified where necessary
1	AT60142HT	5V tolerant 512Kx8 SRAM High speed, rad-hard version Operating temperature range : -55 / +125 °C	SMD 5962-05208	FP36	• ATMEL	
1	SMDJ-65608EV-30	128Kx8 SRAM Variant 06 of ESCC 9301/047	ESCC 9301/047	FP-32	• ATMEL	Also available with SMD/5962-89598
1	SMDJ-65609E	3.3 V 128Kx8 SRAM Operating temperature range : -55 / +125 °C	ESCC 9301/053	FP 32	• ATMEL	Also available with SMD/5962-02501

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	MMSD32032602S-J	1 Gb (32M x 32) SDRAM memory module	3DPA-1600-4 (Detail), 3DPF-0141-4 (Generic)	SOP 70-0635	• 3D-Plus	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	AT40KEL040	40k Gates SEU hardened reprogrammable FPGA DSP Optimized Core Cell and Distributed FreeRam, Enhanced Performance Improvement and Bi-directional I/Os (3.3 V) Operating temperature range: -55 to +125 °C	ESCC 9304/008	MQFP 160	• ATMEL	Also available with SMD/5962-03250

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	ATC18RHA	0.18u CMOS ASIC standard cell library with predefined matrix sizes: ATC18RHA95_216 allowing to integrate typically 1Mgates ATC18RHA95_324 allowing to integrate typically 2.2Mgates ATC18RHA95_404 allowing to integrate typically 3.5Mgates ATC18RHA95_504 allowing to integrate typically 5.5MgatesPredefined combinations of matrix and package: 196 to 352 MQFPOperating temperature range : -55 / +125 C	ESCC 9202/080	MQFP	• ATMEL	Also available with 5962-06B02

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	LM124AW	Low Power Quad Bipolar Operational Amplifier Operating temperature range: -55 / +125 °C	SMD/5962-99504	FP-14	• NATIONAL SEMICONDUCTOR	Part is R level (100 kRad(Si)) TID tolerant, Var. 02 is "not sensitive to low dose rate"; it is recommended to procure P/N 5962R9950402VDA (no lower TID levels).
1	OP27A	Single, Ultra-Low Noise and Offset, Internally Compensated Operational Amplifier	SMD/5962-94680	DIL FP10	• ANALOG DEVICES	
1	OP470AY	Operational Amplifier, Quad, Very Low Noise	SMD/5962-88565	DIL, FP24	• ANALOG DEVICES	
1	OP77	Ultra low offset Voltage Operational Amplifier (replacement of OP-07 and OP-108A).	SMD/5962-87738	LCC20 FP10	• ANALOG DEVICES	
1	RHF310K-01V	Operational Amplifier Single, High Speed, Current Feedback Operating temperature range: -55 / +125 °C	SMD/5962-07233	FP-8	• STMicroelectronics	
1	RHF330K-01V	Operational Amplifier, Single, High Speed, Current Feedback Operating Temperature Range: -55 to +125 °C	SMD/5962-07231	FP-8	• STMicroelectronics	New component
1	RHF43B	Operational Amplifier, Single Operating Temperature Range: -55 to +125 °C	SMD/5962-06237	FP-8	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	LM117H	3-Terminal Adjustable Positive Regulator, 0.5A	SMD/5962-07229	TO-39, Ceramic SOIC	• NATIONAL SEMICONDUCTOR	
1	LM117K	3-Terminal Adjustable Positive Regulator, 1.5A	SMD/5962-99517	TO-3	• NATIONAL SEMICONDUCTOR	
1	LM137H	3 Terminal Adjustable Negative Regulator, 0.5A	SMD/5962-99517	TO-39	• NATIONAL SEMICONDUCTOR	
1	RH-L4913 2.5 V	Fixed, Positive, 2.5 V, 2A Operating temperature range: -55 / +125 °C	SMD/5962-02534	FP16, SMD.5	• STMicroelectronics	
1	RH-L4913 3.3 V	Fixed, Positive, 3.3 V, 2A Operating temperature range: -55 / +125 °C	SMD/5962-02535	FP16, SMD.5	• STMicroelectronics	
1	RH-L4913 5 V	Fixed, Positive, 5 V, 2A Operating temperature range: -55 / +125 °C	SMD/5962-02536	FP16, SMD.5	• STMicroelectronics	
1	RH-L4913 ADJ	Adjustable, Positive, Low Dropout, 2A Operating temperature range: -55 / +125 °C	SMD/5962-02524	FP16	• STMicroelectronics	
1	RH-L7913 ADJ	Adjustable, Negative, Low Dropout, 2A Operating temperature range: -55 / +125 C	SMD/5962-02532	FP-16	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	AD584SH	Voltage Reference, Precision Pin Programmable Variant 01 od SMD/5962-38128 (S precision type) Operating Temperature range: -55 to +125 °C	SMD/5962-38128	8-Pin Metal Can	• ANALOG DEVICES	
1	LM111W	Voltage Comparator/Buffer, Precision	SMD/5962-00524	FP	• NATIONAL SEMICONDUCTOR	
1	LM119	Dual, High Speed Voltage Comparator	SMD/5962-96798	FP	• NATIONAL SEMICONDUCTOR	Part is not ELDRS-free
1	LM139AWR	Quad, Single Supply, Low Power Voltage Comparator	SMD/5962-96738	FP14	• NATIONAL SEMICONDUCTOR	
1	LM193AH	Dual, Low Power, Low Offset Voltage Comparator	SMD/5962-94526	Metal Can	• NATIONAL SEMICONDUCTOR	Part is not ELDRS-free

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	AD574AT	A/D Converter, 12-Bit, High Speed, with Microprocessor Interface	SMD 5962-85127	FP	• ANALOG DEVICES	
1	RHF1201KSO-01V	Rad-Hard, 12 bit, 0.5 to 50 MHz sampling frequency Analog-to-Digital Converter CMOS, 0.25 um technology Operating temperature range: -55 / +125 °C	SMD/5962-05217	FP-48	• STMicroelectronics	
1	RHF1401	Rad-Hard 14-bit 20Msps 85mW A/D Converter Operating Temperature Range: -55 to +125 °C	SMD/5962-0626	SO-48	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	DAC08	8-Bit D/A Converters, 0.19% Linearity	SMD/5962-89932	DIL, FP16	• ANALOG DEVICES	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	AD590M	Temperature Transducer, Two Terminals Forward voltage (E+ to E-)(Vdc): +44 Forward voltage (E- to E+)(Vdc): -20 Breakdown voltage (Case to E+ or E-)(Vdc): ± 200 Rated performance temperature range (°C.): -55 to +150	SMD/5962-87571	FP	• ANALOG DEVICES	
1	UC1707	High Speed Schottky, Dual Channel Power Driver.	SMD/5962-87619	DIL16 LCC20	• TEXAS INSTRUMENTS	Part is not ELDR-free

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	4001B	QUAD 2-INPUT NOR GATE	ESCC 9201/041	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	40103B	PRESETTABLE 8-BIT SYNCHRONOUS DOWN-COUNTER	ESCC 9204/036	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	40105B	FIFO REGISTER WITH 3-STATE OUTPUT	ESCC 9306/033	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	40106B	HEX SCHMITT TRIGGER	ESCC 9409/005	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	40107B	DUAL 2-INPUT NAND BUFFER / DRIVER	ESCC 9401/013	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	40109B	QUAD LOW-TO-HIGH 3-STATE VOLTAGE LEVEL SHIFTER	ESCC 9407/003	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4011B	QUAD 2 INPUT NAND GATE	ESCC 9201/043	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4013B	DUAL D-TYPE FLIP-FLOP	ESCC 9203/023	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	4014B	8-STAGE SYNCHRONOUS STATIC SHIFT REGISTER	ESCC 9306/014	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4015B	DUAL 4-STAGE STATIC SHIFT REGISTER WITH SERIAL INPUT / PARALLEL OUTPUT	ESCC 9306/015	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	40161B	PROGRAMMABLE 4-BIT BINARY COUNTER WITH ASYNCHRONOUS CLEAR	ESCC 9204/054	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	40174B	HEX D-TYPE FLIP-FLOP	ESCC 9203/038	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4017B	DECADE COUNTER / DIVIDER	ESCC 9204/020	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4019B	QUAD AND/OR SELECT GATE	ESCC 9202/051	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4020B	14-STAGE RIPPLE CARRY BINARY COUNTER / DIVIDER	ESCC 9204/022	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4021B	8-STAGE STATIC SHIFT REGISTER	ESCC 9306/016	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	4023B	TRIPLE 3-INPUT NAND GATE	ESCC 9201/045	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4024B	7-STAGE RIPPLE CARRY BINARY COUNTER / DIVIDER	ESCC 9204/024	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4027B	DUAL J-K MASTER-SLAVE FLIP-FLOP	ESCC 9203/022	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4028B	BCD-TO-DECIMAL OR BINARY-TO-OCTAL DECODER	ESCC 9205/010	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4029B	PRESETTABLE UP/DOWN COUNTER BINARY OR BCD DECADE	ESCC 9204/025	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4030B	QUAD 2-INPUT EXCLUSIVE OR GATE	ESCC 9201/047	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4035B	4-BIT UNIVERSAL SHIFT REGISTER	ESCC 9306/018	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4040B	12-STAGE RIPPLE CARRY BINARY COUNTER / DIVIDER	ESCC 9204/026	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	4047B	LOW POWER MONOSTABLE / ASTABLE MULTIVIBRATOR	ESCC 9207/003	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4049UB	HEX BUFFER-CONVERTER (INVERTING TYPE)	ESCC 9202/045	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4050B	HEX BUFFER-CONVERTER (NON-INVERTING TYPE)	ESCC 9202/046	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4051B	ANALOGUE MULTIPLEXER / DEMULTIPLEXER	ESCC 9202/047	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4063B	4-BIT MAGNITUDE COMPARATOR	ESCC 9209/001	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4066B	QUAD BILATERAL SWITCH	ESCC 9408/005	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4069UB	HEX INVERTER	ESCC 9401/010	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4071B	QUAD 2-INPUT OR GATE	ESCC 9201/063	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	4073B	TRIPLE 3-INPUT AND GATE	ESCC 9201/064	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4076B	4-BIT D TYPE REGISTER WITH 3-STATE OUTPUT	ESCC 9306/022	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4081B	8 INPUT OR-NOR GATE	ESCC 9201/052	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4093B	QUAD 2 INPUT NAND GATE WITH SCHMITT TRIGGER INPUT	ESCC 9409/002	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4094B	8-STAGE SHIFT AND STORE BUS REGISTER WITH SYNCHRONOUS SERIAL OUTPUTS AND 3-STATE PARALLEL OUTPUT	ESCC 9306/026	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4098B	DUAL MONOSTABLE MULTIVIBRATOR	ESCC 9206/003	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4099B	8-BIT ADDRESSABLE LATCH	ESCC 9202/058	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4502B	STROBED HEX INVERTER / BUFFER	ESCC 9401/006	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	4503B	HEX NON-INVERTING BUFFER WITH 3-STATE OUTPUT	ESCC 9401/030	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4508B	DUAL 4-BIT LATCH WITH 3-STATE OUTPUT	ESCC 9202/063	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4512B	8-CHANNEL MULTIPLEXER WITH 3-STATE OUTPUT	ESCC 9408/006	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	4555B	DUAL 1-OF-4 DECODER / DEMULTIPLEXER	ESCC 9408/011	FP	• STMicroelectronics	100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure
1	54AC00	Quad 2-Input NAND Gate	SMD/5962-87549	FP	• STMicroelectronics	
1	54AC02	Quad 2-Input NOR Gate	SMD/5962-87612	FP	• STMicroelectronics	
1	54AC04	Hex Inverter	SMD/5962-87609	FP	• STMicroelectronics	
1	54AC08	Quad 2-Input AND Gate	SMD/5962-87615	FP	• STMicroelectronics	
1	54AC10	Triple 3-Input NAND Gate	SMD/5962-87610	FP	• STMicroelectronics	
1	54AC11	Triple 3-Input AND Gate	SMD/5962-87611	FP	• STMicroelectronics	
1	54AC138	Decoder/Demultiplexer, 3-to-8 line	SMD/5962-87622	FP	• STMicroelectronics	
1	54AC139	Dual 2 To 4 Line Decoder/Demultiplexer, with Inverted Outputs	SMD/5962-87623	FP	• STMicroelectronics	
1	54AC14	Hex Schmitt Trigger Inverter	SMD/5962-87624	FP	• STMicroelectronics	
1	54AC157	Quad 2-Input Multiplexer	SMD/5962-89539	FP	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	54AC161	Synchronous 4-Bit Binary Counter	SMD/5962-89561	FP	• STMicroelectronics	
1	54AC16244	16 bit Buffer/Driver with three-state outputs	SMD/5962-04210	FP	• STMicroelectronics	
1	54AC240	Octal Bus Buffer with Inverted 3-State Outputs	SMD/5962-87550	FP	• STMicroelectronics	
1	54AC244	Octal Buffer/Line Driver with 3-State Outputs	SMD/5962-87552	FP	• STMicroelectronics	
1	54AC245	Bus Transceiver, 8-Bit, Bidirectional, with 3-State Inputs/Outputs	SMD/5962-87758	FP	• STMicroelectronics	
1	54AC273	Octal D-Type Flip-Flop with Clear	SMD/5962-87756	FP	• STMicroelectronics	
1	54AC32	Quad 2-Input OR Gate	SMD/5962-87614	FP	• STMicroelectronics	
1	54AC373	Octal D-Type Transparent Latches with 3-State Outputs	SMD/5962-87555	FP	• STMicroelectronics	
1	54AC374	Octal D-Type Flip-Flop with 3-State Outputs	SMD/5962-87694	FP	• STMicroelectronics	
1	54AC541	Octal Bus Buffer with 3-State Outputs	SMD/5962-88706	FP	• STMicroelectronics	
1	54AC74	Octal D-Type Flip-Flop with 3-State Outputs	SMD/5962-88520	FP	• STMicroelectronics	
1	54AC86	Quad 2-Input Exclusive OR Gate	SMD/5962-89550	FP	• STMicroelectronics	
1	54ACT00	Quad 2-Input NAND Gate, with TTL Compatible Inputs	SMD/5962-87699	FP	• STMicroelectronics	
1	54ACT240	Octal Bus Buffer with Inverted 3-State Outputs, TTL Compatible Inputs	SMD/5962-87759	FP	• STMicroelectronics	
1	54ACT244	Octal Buffer/Line Driver with 3-State Outputs, TTL Compatible Inputs	SMD/5962-87760	FP	• STMicroelectronics	
1	54ACT245	Octal Bidirectional Transceiver with 3-State Outputs, TTL Compatible Inputs	SMD/5962-87663	FP	• STMicroelectronics	
1	54ACT574	Octal D-Type Flip-Flop with 3-State Outputs, TTL Compatible Inputs	SMD/5962-89601	FP	• STMicroelectronics	
1	54ACT86	Quad 2-Input Exclusive OR Gate, TTL Compatible Inputs	SMD/5962-90687	FP	• STMicroelectronics	
1	54HC00	Quad 2-Input NAND Gate	ESCC 9201/105	FP	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	54HC02	Quad 2-Input NOR Gate	ESCC 9201/113	FP	• STMicroelectronics	
1	54HC03	Quad 2-Input Nand Gate with Open Drain Output	ESCC 9201/114	FP	• STMicroelectronics	
1	54HC04	Hex Inverter	ESCC 9401/033	FP	• STMicroelectronics	
1	54HC08	Quad 2-Input Positive AND Gate	ESCC 9201/106	FP	• STMicroelectronics	
1	54HC10	Triple 3-Input NAND Gate	ESCC 9201/107	FP	• STMicroelectronics	
1	54HC109	Dual J-K Positive Edge Triggered Flip-Flop with Preset and Clear	ESCC 9306/048	FP	• STMicroelectronics	
1	54HC11	Triple 3-Input AND Gate	ESCC 9201/117	FP	• STMicroelectronics	
1	54HC125	Quad Bus Buffers with 3 State Outputs	ESCC 9401/039	FP	• STMicroelectronics	
1	54HC132	Quad 2-Input NAND Gate with Schmitt-trigger Inputs	ESCC 9201/120	FP	• STMicroelectronics	
1	54HC138	3-to-8 Line Decoders/Demultiplexers with Inverted Outputs	ESCC 9408/046	FP	• STMicroelectronics	
1	54HC139	Dual 2-to-4-line Decoders/Demultiplexers with Inverted Outputs	ESCC 9205/017	FP	• STMicroelectronics	
1	54HC14	Hex Schmitt Trigger Inverter	ESCC 9409/007	FP	• STMicroelectronics	
1	54HC151	8-line to 1-line Data Selectors/Multiplexer	ESCC 9408/054	FP	• STMicroelectronics	
1	54HC154	4-to-6 Line Decoder/Demultiplexer with Inverted Output	ESCC 9205/023	FP	• STMicroelectronics	
1	54HC157	Quad 2-line to 1-line Data Selectors/Multiplexers	ESCC 9408/057	FP	• STMicroelectronics	
1	54HC158	Quad 2-to-1-Line Data Selectors/Multiplexers with Inverted Outputs	ESCC 9408/059	FP	• STMicroelectronics	
1	54HC161	Asynchronous 4-Bit Binary Counter	ESCC 9204/059	FP	• STMicroelectronics	
1	54HC163	Synchronous 4-Bit Binary Counter	ESCC 9204/073	FP	• STMicroelectronics	
1	54HC164	8-bit Sipo Shift Register	ESCC 9306/041	FP	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	54HC165	8-bit Sipo Shift Register	ESCC 9306/042	FP	• STMicroelectronics	
1	54HC166	8-bit Piso Shift Register	ESCC 9306/043	FP	• STMicroelectronics	
1	54HC174	Hex D-Type Edge-triggered Flip-Flop with Clear	ESCC 9306/052	FP	• STMicroelectronics	
1	54HC175	Quad D-Type Edge-triggered Flip-Flop with Clear	ESCC 9203/052	FP	• STMicroelectronics	
1	54HC191	Synchronous 4-Bit Up/Down Binary Counter	ESCC 9204/066	FP	• STMicroelectronics	
1	54HC193	Synchronous 4-Bit Up/Down Binary Counter (Dual Clock with Clear)	ESCC 9204/065	FP	• STMicroelectronics	
1	54HC20	Dual 4-Input NAND Gate	ESCC 9201/118	FP	• STMicroelectronics	
1	54HC21	Dual 4-Input AND Gate	ESCC 9201/108	FP	• STMicroelectronics	
1	54HC237	3-to-8-Line Decoder/Demultiplexer with Address Latch	ESCC 9205/021	FP	• STMicroelectronics	
1	54HC240	Octal Bus Buffer with Inverted 3-State Outputs	ESCC 9401/034	FP	• STMicroelectronics	
1	54HC244	Octal Bus Buffer with 3-State Outputs	ESCC 9401/048	FP	• STMicroelectronics	
1	54HC245	Octal Bus Transceiver with 3-State Outputs	ESCC 9405/013	FP	• STMicroelectronics	
1	54HC257	Quad 2-to-1-Line Data Selector/Multiplexer with 3-State Outputs	ESCC 9408/047	FP	• STMicroelectronics	
1	54HC27	Triple 3-Input NOR Gate	ESCC 9201/109	FP	• STMicroelectronics	
1	54HC273	Octal D-Type Edge-triggered Flip-Flop with Clear	ESCC 9203/053	FP	• STMicroelectronics	
1	54HC283	4-Bit Binary Full Adders with Fast Carry	ESCC 9202/075	FP	• STMicroelectronics	
1	54HC32	Quad 2-Input OR Gate	ESCC 9201/111	FP	• STMicroelectronics	
1	54HC373	Octal D-Type Transparent Latches with 3-State Outputs	ESCC 9203/059	FP	• STMicroelectronics	
1	54HC374	Octal D-Type Edge-triggered Flip-Flop with 3-State Outputs	ESCC 9203/060	FP	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	54HC4040	Asynchronous Negative Edge-triggered 12-Bit Binary Counters	ESCC 9204/069	FP	• STMicroelectronics	
1	54HC4049	Hex Buffer Converter with Inverted Outputs	ESCC 9401/037	FP	• STMicroelectronics	
1	54HC4050	Hex Buffer Converter	ESCC 9401/038	FP	• STMicroelectronics	
1	54HC540	Octal Bus Buffer with Inverted 3-State Outputs	ESCC 9401/049	FP	• STMicroelectronics	
1	54HC541	Octal bus buffer with 3-state output	ESCC 9401/047	FP	• STMicroelectronics	
1	54HC573	Octal D-type transparent latch with 3-state output	ESCC 9202/072	FP	• STMicroelectronics	
1	54HC574	Octal D-type edge-triggered flip-flop with 3-state output	ESCC 9203/054	FP	• STMicroelectronics	
1	54HC590	8-Bit Binary Counter with 3-State Output Registers	ESCC 9204/071	FP	• STMicroelectronics	
1	54HC595	8-Bit Shift Registers with 3-State Output Registers	ESCC 9306/051	FP	• STMicroelectronics	
1	54HC597	8-Bit Piso Shift Register	ESCC 9306/054	FP	• STMicroelectronics	
1	54HC688	8-bit identify comparator	ESCC 9209/005	FP	• STMicroelectronics	
1	54HC74	Dual Negative Edge Triggered D-Type Flip-Flop with Clear	ESCC 9203/050	FP	• STMicroelectronics	
1	54HC85	4-Bit Magnitude Comparator	ESCC 9209/004	FP	• STMicroelectronics	
1	54HC86	Quad 2-Input Exclusive OR Gate	ESCC 9201/119	FP	• STMicroelectronics	
1	54HCT240	Octal Bus Buffer with Inverted 3-State Outputs	ESCC 9401/045	FP	• STMicroelectronics	
1	54HCT244	Octal Bus Buffer with 3-State Outputs	ESCC 9402/009	FP	• STMicroelectronics	
1	54HCT245	Octal Bus Transceiver with 3-State Outputs	ESCC 9405/014	FP	• STMicroelectronics	
1	54HCT373	Octal D-Type Transparent Latch with 3-State Outputs	ESCC 9203/064	FP	• STMicroelectronics	
1	54HCT374	Octal D-Type Edge-triggered Flip-Flop with 3-State Outputs	ESCC 9203/066	FP	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	54HCT74	Dual D-Type Flip-Flop with Preset and Clear	ESCC 9203/070	FP	• STMicroelectronics	
1	54VCXH162244	Low Voltage CMOS 16-bit Bus Buffer with Bus hold, series Output Resistors and three-state Outputs Operating temperature range: -55 / +125 °C	SMD/5962-05210	FP-48	• STMicroelectronics	
1	54VCXH162373	Low Voltage CMOS 16-bit D-type Latch with Bus hold, series Output Resistors and three-state Outputs Operating temperature range: -55 / +125 °C	SMD/5962-05211	FP-48	• STMicroelectronics	
1	54VCXH162374	Low Voltage CMOS 16-bit D-type Flip-Flop with Bus hold, series Output Resistors and three-state Outputs	SMD/5962-05212	FP-48	• STMicroelectronics	
1	54VCXHR162245	Rad-Hard low voltage CMOS, 16-bit bus transceiver with bus hold, Series Output Resistors, and Three-State Outputs Supply voltage range from +1.8 V dc to +3.6 V dc Operating temperature range: -55 / +125 °C	SMD 5962/05213	FP-48	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	PE33362	Silicon on Sapphire, 3.5 GHz Integer-N Phase Locked Loop (PLL) Frequency Synthesizer, 10/11 Dual Mode Prescaler, Programmable Counters, Phase Detector and Control Logic, Hermetically Sealed Operating Temperature Range: -55 to +85 °C	14-0054	CQFPJ-44	• Peregrine Semiconductor Europe	
2	PE33382	Silicon on Sapphire, 3.5 GHz Integer-N Phase Locked Loop (PLL) Frequency Synthesizer, 10/11 Dual Mode Prescaler, Programmable Counters, Phase Detector and Control Logic, Hermetically SealedOperating Temperature Range: -55 to +85 °C	14-0055	CQFPJ-44	• Peregrine Semiconductor Europe	also available with ESCC 9202/079
1	PE33632	RF input up to 3.5 GHz, 3 wire serial interface 18-bit delta-sigma modulator, divide by 10/11 dual mode prescaler, programmable counters, phase detectors and control logic	ESCC 9202/077	CQFPJ-68		

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	BES	1µm Schottky diode process	ESCC 9010	N/A	• UMS	It is the responsibility of the users to check that the process design can withstand the radiation requirements for its application
2	D01PH	0.13 µm 100 GHz ft 12V VBGD Pseudomorphic Power MMIC Process	Standard D01PH	DIE	• OMMIC	D01PH Process is sensitive to Hydrogen poisoning. A Hydrogen getter is mandatory in case of hermetic encapsulation. No radiation tests were performed on this process. Therefore it is the responsibility of the users to check that its design can withstand the radiation requirements for its application (especially for SEE)
2	EDO2AH	0.18 µm Mixed Analog/Digital 60 GHz Ft Pseudomorphic Low Noise MMIC Process	Standard ED02AH	DIE	• OMMIC	EDO2AH Process is sensitive to Hydrogen poisoning. A Hydrogen getter is mandatory in case of hermetic encapsulation.
2	HB20M	Mixed digital/analog MMIC HBT process InGaP HBT (2 μm emitter width) Application in mixed digital/analog circuits up to Ku band	ESCC 9010	N/A	• UMS	Single Events Effects have to be considered due to the digital elements
2	HB20P	HBT GaInP/GaAs Foundry Process, 0.7 um GateApplications in Power Amplifiers up to Ku Band	ESCC 9010	N/A	• UMS	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	HB20PX	HBT InGaP (2 µm emitter width) Applications in Power Amplifiers up to Ku Band	ESCC 9010	N/A	• UMS	It is the responsibility of the users to check that the process design can withstand the radiation requirements for its application. Max ratings should be in conformance with the application
2	HB20S	Power HBT process Application in Power Transistors for L to C band Amplifiers	ESCC 9010	N/A	• UMS	No radiation tests was performed on this process. Therefore it is the responsibility of the users to check that its design can withstand the radiation requirements for its application.
2	HP07	MMIC, GaAs Foundry Process, MESFET 0.7 um for power applications up to Ku Band	ESCC 9010	N/A	• UMS	DO NOT USE BEYOND Ugdmax/2 DUE TO SENSITIVITY TO HEAVY IONS
2	MMICProcess PPH15X-10	0.15 µm GaAs Power P-HEMT process Absolute Maximum Ratings (AMR) for PPH15X-10: - Drain to Source Voltage: Vds = 8V at Ids = 150mA/mm - Maximum instantaneous RF Drain to Gate Voltage: Vdgmax = 14V at the maximum DC Operating point specified above (Vds = 8V and Ids = 150mA/mm) - RF Compression = 7dB for Power matched 8x75m cell at Ids = 150mA/mm and Vds = 7V - Gate to Source Voltage: Vgs = -2.5V	NA	NA	• UMS	SEE to be performed by end user, testing in DC only planed in the frame of other ESA research Programme, EPPL would be updated accordingly in 2012

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	PH15	MMIC GaAs Foumdry Process, 0.15 um Pseudomorphic High Electron Mobility Transistor (P-HEMT) for low noise, low level applications up to W Band	NONE	N/A	• UMS	Passive elements are similar to PH25 Process. No radiation tests were performed on this process. Therefore it is the responsibility of the users to check that its design can withstand the radiation requirements for its application (especially for SEE).
2	PH25	MMIC GaAs Foumdry Process, 0.25 um Pseudomorphic High Electron Mobility Transistor (P-HEMT) for low noise, low level applications up to 100 GHz	ESCC 9010	N/A	• UMS	
2	PPH25X	0.25 µm Power P-HEMT process Application in Power Amplifiers C to K band	ESCC 9010	N/A	• UMS	No radiation tests was performed on this process. Therefore it is the responsibility of the users to check that its design can withstand the radiation requirements for its application. Max ratings should be in conformance with the application

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	AT7910E	SpW-10X router: it includes 8 bi-directional SpaceWire serial ports and 2 bidirectional parallel external interfaces.	SMD 5962-09A03	MQFP196		
1	AT7911E	Triple SpaceWire links high speed controller	SMD/5962-08A01	MQFPL 196	• ATMEL	
1	AT7912E	SpaceWire link high speed controller, also known as SMCS116SpW	SMD 5962-08A02	MQFPF100		

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	317	Contact Rating: 15A at 28 Vdc Contact Configuration: 2PDT Coil Voltage: 6, 12 and 28Vdc Mounting Variants 01 to 06 Size (max mm.): 26 x 26 x 14. Operating Temperature Range (°C): -65 to +125	ESCC 3601/007	1/2 CAN	• STPI	
1	E	Contact Rating: 1A at 28 Vdc Contact Configuration: 2PDT Coil Voltage: 6, 12 and 26.5Vdc Mounting Variants 01 and 11 Size (max mm.): 13.00 x 10.40 x 6.10. Operating Temperature Range (°C): -65 to +125	ESCC 3601/012	1/6 Crystal CAN	• LEACH INTERNATIONAL Europe	
2	E215	Contact Rating: 15 A at 28 Vdc Contact Configuration: 2PDT Coil Voltage: 6, 12 and 28 Vdc Mounting Variants 03,04 and 06 Size (max mm.): 13.00 x 25.70 x 25.80. Operating Temperature Range (°C): -65 to +125	ESCC 3601/007	Half-cubic inch can	• REL STPI	
1	GP5	Contact Rating: 2A at 28 Vdc Contact Configuration: 2PDT Coil Voltage: 6, 12 and 26.5 Vdc Mounting Variants 02, 03 and 06 Size (max mm.): 20.57 x 10.41 x 10.41. Operating Temperature Range (°C): -65 to +125	ESCC 3601/003	Half crystal can	• LEACH INTERNATIONAL Europe	
1	T	Contact Rating: 1A at 28 Vdc Contact Configuration: 2PDT Coil Voltage: 6.0, 12 V Size (max mm):DIA 9.40 x 7.00 Operating Temperature Range (°C.): -65 to +125	ESCC 3601/002	TO-5	• REL STPI	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	317B	Contact Rating: 15A at 28 Vdc Contact Configuration: 2PDT Coil Voltage: 6, 12 and 28Vdc Mounting Variants 03, 04, 06, 14 and 16 Size (max mm.): 26 x 26 x 13.34 Operating Temperature Range (°C): -65 to +125	ESCC 3602/009	1/2 CAN	• STPI	
1	327B	Contact Rating: 15A at 28 Vdc Contact Configuration: 4PDT Coil Voltage: 6, 12 and 28Vdc Mounting Variants 04, 06, 09, 14, 16 and 19 Size (max mm.): 26 x 26 x 26 Operating Temperature Range (°C): -65 to +125	ESCC 3602/004	CAN	• STPI	
1	D	Contact Rating: 1A at 28 Vdc Contact Configuration: 2PDT Coil Voltage: 6, 12 and 26.5 Vdc Mounting Variants 01 and 11 Size (max mm.): 13.00 x 10.40 x 6.10. Operating Temperature Range (°C): -65 to +125	ESCC 3602/019	1/6 Crystal CAN	• LEACH INTERNATIONAL Europe	
1	GP2	Contact Rating: 2A at 28 Vdc Contact Configuration: 2PDT Coil Voltage: 6, 12 and 26.5 Vdc Mounting Variants 02, 03 and 06 Size (max mm.): 20.57 x 10.41 x 11.00. Operating Temperature Range (°C): -65 to +125	ESCC 3602/003	Half crystal can	• LEACH INTERNATIONAL Europe	
1	GP250	Contact Rating: 2A at 50 Vdc (4A pp. at 56 Vrms, 20 kHz) Contact Configuration: 2PDT Coil Voltage: 12 and 26.5 Vdc Mounting Variants 02, 03 and 06 Size (max mm.): 20.57 x 10.41 x 11.00. Operating Temperature Range (°C): -65 to +125	ESCC 3602/010	Half crystal can	• LEACH INTERNATIONAL Europe	
2	PHL50	Contact Rating: 50A at 50 Vdc Contact Configuration: 1PDT Coil Voltage : 48, 28, 12 Vdc Size (max mm): 47.8 x 34.6 x 26.2 Operating Temperature Range (°C): -65 to +125	ESCC 3602/014	AS PER SPEC.	• REL STPI	
1	TL	Contact Rating: 1A at 28 Vdc Contact Configuration: 2PDT Coil Voltage: 6.0, 12 V Size (max mm): DIA 9.40 x 7.00 Operating Temperature Range (°C.): -65 to +125	ESCC 3602/002	TO-5	• REL STPI	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	SMP/SMS/SMT	SMD tape and reel shunt resistors Variant Res. range (mohm) Tolerance (%) Temp. coefficient (ppm/°C) 01 5 - 1000 0.5 - 1.0 50 02 3 - 1000 0.5 - 1.0 50 03 4 - 2000 0.5 - 1.0 50 Dimensions max. (mm): 7.3 x 4.3 x 1.0 Operating temperature range: -55 to +170 °C	ESCC 4001/027	TAPE AND REEL	• ISABELLENHUETTE HEUSLER GmbH & Co.KG	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	MG680	High Voltage Range (Ohm): 600 - 20M Tol. (±%) : 0.5 TC (10E-6/±C): 140 Power Rating (W): 0.800 Max. Voltage (V): 2000 Size (max mm): DIA 1.80 x 4.30 Operating temperature range (°C): -55 to +125	GSFC S-311-P-683	Axial	• CADDOCK ELECTRONICS	
2	MG710	High Voltage Range (Ohm): 800 - 50M Tol. (± %) : 0.5 TC (10E-6/°C): 140 Power Rating (W): 1 Max. Voltage (V): 4000 Size (max mm): DIA 1.80 x 4.30 Operating temperature range (°C): -55 to +125	GSFC S-311-P-683	Axial	• CADDOCK ELECTRONICS	
2	MG716	High Voltage Range (Ohm): 600 - 75M Tol. (± %) : 0.5 TC (10E-6/°C): 140 Power Rating (W): 1.5 Max. Voltage (V): 4000 Size (max mm): DIA 1.80 x 4.30 Operating temperature range (°C): -55 to +125	GSFC S-311-P-683	Axial	• CADDOCK ELECTRONICS	
2	MG721	High Voltage Range (Ohm): 200 - 100M Tol. (± %) : 0.5 TC (10E-6/°C): 140 Power Rating (W): 2 Max. Voltage (V): 4000 Size (max mm): DIA 1.80 x 4.30 Operating temperature range (°C): -55 to +125	GSFC S-311-P-683	Axial	• CADDOCK ELECTRONICS	
1	RNC90	Film Non-Hermetically Sealed Range (Ohm): 50 - 100K Tol. (± %) : 0.02, 1 TC (10E-6/°C): 5 Power Rating (W): 0.5@70C Max. Voltage (V): 300 Size (max mm): 7.5 x 8 x 2.5 Operating temperature range (°C): -55 to +175	ESCC 4001/011	AXIAL	• VISHAY S.A. div. SFERNICE	
1	TNPS	Resistors, Fixed, Surface Mount, Thin Film, Non-Hermetic, Based on Type TNPS E96 series, Style 0603, 0805 and 1206, 10 to 1.0 MOhm, 0.1 % tolerance, 15 ppm/°C TC	ESCC 4001/029	Chip	• VISHAY ELECTRONIC GmbH - DIVISION DRALORIC	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	CHP	Thick Film Chip Resistors with wraparound terminations Temperature coefficient: 100, 200 ppm/°C Tolerance: 1%, 2%, 5% Res. range (ohm) Power (mW) Max. Rated Voltage (V) Size 0603: 1 to 1M 100 49 Size 0805: 1 to 1M 200 49 Size 1206: 1 to 1M 250 49 Size 2010: 1 to 1M 500 49 Size 2512: 1 to 1M 800 49	ESCC 4001/026	CHIP	• VISHAY S.A. div. SFERNICE	
1	P HR	Thin Film, 1206/0805/2010/0603 Series, High Precision and Stability Case Size Resistance Range (ohm) Tolerance Power Rating (mW) Dimensions (max. mm) 0603(Var. 01-05) 250 to 200 k 0.01, 0.02 % 100 2.16 x 1.01 x 1.02 0805(Var. 02-06) 250 to 250 k 0.01, 0.02 % 125 2.55 x 1.53 x 1.02 1206(Var. 03-07) 250 to 1 M 0.01, 0.02 % 250 3.64 x 1.86 x 1.02 TC (10E-6/°C) : 10 Operating Temperature Range -55 to +125 °C	ESCC 4001/023	CHIP	• VISHAY S.A. div. SFERNICE	
1	PFRR	Thin Film, 0603/0805/1206/2010 Series, High Precision and Stability with Establish Reliability Level R Case Size Resistance Range (ohm); Tolerance (%); Power Rating (mW); Dimen.(max. mm) 0603(Var. 09): 100 to 261K; 0.05, 0.1; 100; 2.16 x 1.01 x 1.02 0805(Var. 10): 100 to 301K; 0.05, 0.1; 125; 2.55 x 1.53 x 1.02 1206(Var. 11): 100 to 1M; 0.05, 0.1; 250; 3.64 x 1.86 x 1.02 2010(Var. 12): 100 to 3M01; 0.05, 0.1; 500; 5.72 x 2.8 x 1.02 TC (10E-6/°C) : 10 Operating Temperature Range -55 to +125°C	ESCC 4001/023	CHIP	• VISHAY S.A. div. SFERNICE	Modification in Description
1	PRA HR & CNW HR	Surface mounting, high precision thin film array 2 to 8 resistors by Array. PRA HR (same ohmic value) CNW HR (diff. ohmic value) Range (Ohm): 100 - 1.0M; Tol. (± %): 0.05, 1 Power Rating (mW): 100/resistor; Temp. Coeff. (±10E-6/°C): 10 Terminations : Nickel, hot-solder dip finish Variant(Type); Limit. Elem. Voltage (V); Size for Array with 8 resistors (max mm) 01 to 07 & 22 to 28 (PRA100); 35 ; 1.8 x 8.4 x 0.58 08 to 14 & 29 to 35 (PRA135); 75 ; 2.05 x 11.2 x 0.58 15 to 21 & 36 to 42 (PRA135); 3.2 ; 14.96 x 0.58 Operating Temperature Range (°C) : -55 to +155	ESCC 4001/025	SMD	• VISHAY S.A. div. SFERNICE	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	RM2010	Film Range (Ohm): 5.6 - 15M Tol. (± %): 1, 2 Power Rating (mW): 800 Voltage Rating (V): 150 Temp. Coeff. (±10E-6/°C) : 100(K), 300(M) Size (max mm) : 5.60 x 2.65 x 0.85 Operating temperature range (°C) : -55 to +70 (+150 at 0 watt)	MIL-PRF-55342/8	CHIP	• STATE OF THE ART	
1	SMV/SMR	SMD metal foil chip resistors Variant Res. range (ohm) Tolerance (%) Temp. coefficient (ppm/°C) 01 (SMR-PW) 0.010 - 4.7 0.5 see Para. 1.4.2 of detail spec. 02 (SMV-PW) 0.0022 - 1.0 0.5 see Para. 1.4.2 of detail spec. Dimensions max. (mm): Variant 01 (2 terminals): 12.3 x 6.6 x 3.6 Variant 02 (4 terminals): 12.3 x 6.6 x 3.6 Operating temperature range: -55 to +140 °C	ESCC 4001/028	SMD	• ISABELLENHUETTE HEUSLER GmbH & Co.KG	
2	VCS1625	Z-foil Wraparound Chip Resistors Temperature coefficient: 2 ppm/°C typical resistance range: 0.01 to 2 ohm Tolerance: 0.5%, 1% Power rating: 1 W	Data sheet 303119 + EEE-INST-002	CHIP	• VISHAY ISRAEL	Update

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	Heater	Resistor, Heater, Flexible, Single and double layer. Maximum ohmic density: 200 ohm/cm2 Tolerances: ±2, 5 % Resistance range: 1 to 5000 ohm Heating area: 1.6 to 1300 cm2 Maximum heating side dimension: 60 cm Terminal lead: 20, 22, 24, 26, 28, 30 AWG Temperature range (10-6°C.): 175 Operating Temperature Range (°C.): -65 to +200.	ESCC 4009/002	AS PER SPEC.	• IRCA-DIVISION RICA	
2	HEATERS FLEXIBLE	Single sided flexible heated, polymide coated Operating temperature range: -200 to +200 °C	MINCO P.Q.02 Rev. 01 18/09/01	N/A	• MINCO - SA	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	4006013***	NTC, range 1000 to 100000 ohms @ +25 °C temperature range -55 / +115 °C nominal values and tolerances at +25 °C : Var. 01 : 1000 ohm 0.88 % Var. 02 : 2000 ohm 0.88 % Var. 03 : 3000 ohm 0.88 % Var. 04 : 4000 ohm 0.88 % Var. 05 : 5000 ohm 0.88 % Var. 07 : 100000 ohm 0.93 %	ESCC 4006/013	AS PER SPEC.	• MEAS Ireland (Betatherm) Ltd.	New Variant 07 included
1	4006014***	NTC, range 2000 to 100000 ohms @ +25 °C temperature range -40 / +160 °C nominal values and tolerances at +25 °C : Var. 08 : G15K4D489 15000 ohm 1.01 % Var. 09 : G10K4D453 10000 ohm 2.00 % Var. 12 : G100K6D487 100000 ohm 1.75 % Var. 13 : G15K4D589 15000 ohm 1.01 %	ESCC 4006/014	AS PER SPEC.	• MEAS Ireland (Betatherm) Ltd.	New Variants 12 and 13 included
2	44900 Series	Leaded, Epoxy Encapsulated, Negative Temperature Coefficient Pd (mW): 1 Tolerance (± %): 0.4 to 10 Range (Ohm @ 25°C): 2.2k, 3k, 5k, 10k, 30k Package (max mm): S Variant DIA 2.40, T Variant DIA 2.80 Various Wires Definitions (Type & AWG) Operating Temperature Range (°C): -55 to +90	GSFC S-311-P-18	AS PER SPEC.	• MEASUREMENT SPECIALTIES Ltd (YSI TEMPERATURE)	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	N1043/301	Platinum probe sheath type thermal sensor Nominal resistance: 1000±2ohm (at 0°C) Source current: 5mA Max. Operating temperature range: -260 to +135°C	JAXA-QTS-2180/103	Probe Sheath	• Mitsubishi Heavy Industries, Ltd	New component
1	N1043/501	Platinum surface type thermal sensor Type; Operating Temp. Range; Nominal resistance N1043/501-90-300; -260 to +400°C; 2000±4ohm (at 0°C) N1043/501-91-600; -196 to +400°C; 500±1ohm (at 0°C) Source current: 5mA Max. Operating temperature range: -260 to +135°C	JAXA-QTS-2180/105	SMD	• Mitsubishi Heavy Industries, Ltd	New component

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	N1043/401	Platinum Extension Wire Sheath Type thermal sensor Type; Length; Measured Temp Range; Operatimg Temp Range; Nominal Resistance (@0°C) N1043/401-70-902-1; 43±1mm±; -18 to +930°C; -60 to +980°C; 100±0.5ohm N1043/401-70-902-2; 84±1mm; -18 to +930°C; -60 to +980°C; 100±0.5ohm N1043/401-70-902-3; 66±1mm; -18 to +930°C; -60 to +980°C; 100±0.5ohm N1043/401-71-702-1; 84±1mm; -80 to +430°C; -120 to +430°C; 500±2.5ohm Source current: 5mA Max.	JAXA-QTS-2180/104	N/A	• Mitsubishi Heavy Industries, Ltd	New component

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	2N2219A	hFE min/max: 100/300 @ IC = 150 mA PD (mW): 800 BV CBO (V): 75 BV CEO (V): 40 IC (mA): 800 Operating Temperature Range (°C.): -65 to +200	ESCC 5201/003	TO39	• STMicroelectronics	
1	2N2222A	hFE min/max: 100/300 @ IC = 150 mA PD (mW): 500 BV CBO (V): 75 BV CEO (V): 40 IC (mA): 800 @10 us pulse Operating Temperature Range (°C.): -65 to +200	ESCC 5201/002	LCCC3	• STMicroelectronics	
1	2N2484	hFE min/max: 250/650 @ IC = 1 mA PD (mW): 360 BV CBO (V): 60 BV CEO (V): 60 IC (mA): 50 Operating Temperature Range (°C.): -65 to +200	ESCC 5201/001	LCCC3	• STMicroelectronics	
1	2N3019	hFE min/max: 100/300 @ IC = 150 mA PD (mW): 800 BV CBO (V): 140 BV CEO (V): 80 IC (A): 1 Operating Temperature Range (°C.): -55 to +175	ESCC 5201/011	TO39	• STMicroelectronics	
1	2N3501L	hFE min/max: 100/300 @ IC = 150 mA PD (W): 1 BV CBO (V): 150 BV CEO (V): 150 IC (A): 0.3 Operating Temperature Range (°C.): -65 to +200	MIL-PRF-19500/366	TO205	• MICROSEMI LAWRENCE	Manufacturer Standardization
1	2N3700	hFE min/max: 100/300 @ IC = 150 mA PD (mW): 500 BV CBO (V): 140 BV CEO (V): 80 IC (A): 1 Operating Temperature Range (°C.): -65 to +200	ESCC 5201/004	LCCC3	• STMicroelectronics	
1	2N5551	hFE min/max: 80/250 @ IC = 10 mA PD (mW): 360 BV CBO (V): 180 BV CEO (V): 160 IC (mA): 500 Operating Temperature Range (C.): -65 to +200	ESCC 5201/019	LCCC3	• STMicroelectronics	
1	2N5666, 2N5667	hFE min/max: 40/120 @ IC = 1 A (2N5666) PD (W): 1.2 hFE min/max: 25/75 @ IC = 1 A (2N5667) PD (W): 1.2 BV CBO (V): 250 BV CEO (V): 200 IC (A): 5 (2N5666) BV CBO (V): 400 BV CEO (v): 300 IC (A): 5 (2N5667) Operating Temperature Range (°C.): -65 to +200	MIL-PRF-19500/455	TO205	• MICROSEMI LAWRENCE	Manufacturer Standardization

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	2N2905A	hFE min/max: 100/300 @ IC = -150 mA PD (mW): 600 BV CBO (V): -60 BV CEO (V): -60 IC (mA): -600 Operating Temperature Range (°C.): -65 to +200	ESCC 5202/002	TO39	• STMicroelectronics	
1	2N2907A	hFE min/max: 100/300 @ IC = -150 mA PD (mW): 400 BV CBO (V): -60 BV CEO (V): -60 IC (mA): -600 (-500 for LCC3) Operating Temperature Range (°C.): -65 to +200	ESCC 5202/001	LCCC3	• STMicroelectronics	
1	2N3637	hFE min/max: 100/300 @ IC = -50 mA pulsed PD (W): 1 BV CBO (V): -175 BV CEO (V): -175 IC (A): -1 Operating Temperature Range (°C.): -65 to +200	MIL-PRF-19500/357	TO-205	• MICROSEMI LAWRENCE	Manufacturer Standardization
1	2N3867S, 2N3868S	hFE min/max: 40/120 @ IC = -1.5 A (2N3867S) PD (W): 1 hFE min/max: 30/150 @ IC = -1.5 A (2N3868S) PD (W): 1 BV CBO (V): -40 BV CEO (V): -40 IC (A): -3 (2N3867S) BV CBO (V): -60 BV CEO (v): -60 IC (A): -3 (2N3868S) Operating Temperature Range (°C.): -65 to +200	MIL-PRF-19500/350	TO205	• MICROSEMI LAWRENCE	Manufacturer Standardization
1	2N5401	hFE min/max: 60/240 @ IC = -10 mA PD (mW): 360 BV CBO (V): -160 BV CEO (V): -150 IC (mA): -500 Operating Temperature Range (C.): -65 to +200	ESCC 5202/014	LCCC3	• STMicroelectronics	
1	2N5415	hfe = 30/120 @ Ic=50mA Pdmax. = 0,75 W @Tamb. = +25°C. BV CBO = 200 V BV CEO = 200 V Ic = 1 A Operating Temperature Range (°C.): -65 to +200	MIL-PRF-19500/485	TO39	• MICROSEMI LAWRENCE	Manufacturer Standardization

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	2N5154	hFE min/max: 70/200 @ IC = 2.5 mA PD (W): 8.75 BV CBO (V): 100 BV CEO (V): 80 IC (A): 5 Operating Temperature Range (°C.): -65 to +200	ESCC 5203/010	SMD .5	• STMicroelectronics	
1	BUX77	hFE min/max: 50/200 @ IC = 2 A PD (W): 40 (Var. 01-05), 35 (Var.06-07) BV CBO (V): 100 BV CEO (V): 80 IC (A): 5 Operating Temperature Range (°C.): -65 to +200	ESCC 5203/016	TO257	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	2N5153	hFE min/max: 70/200 @ IC = -2.5 mA PD (W): 10 BV CBO (V): -100 BV CEO (V): -80 IC (A): -2 Operating Temperature Range (°C.): -65 to +200	ESCC 5204/002	SMD .5	• STMicroelectronics	
1	BUX78	hFE min/max: 50/200 @ IC = -2 A PD (W): 40 (Var. 01-05), 35 (Var.06-07) BV CBO (V): -100 BV CEO (V): -80 IC (A): -5 Operating Temperature Range (°C.): -65 to +200	ESCC 5204/006	TO257	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	JAXA R 2SK4048	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=100 V ID=42 A, Rds(on)=18 mohm @ VGS=12 V Rth(ch-c)=0.5 °C/W Tch=150 °C	JAXA-QTS-2030/101	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4049	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=200 V ID=14 A, Rds(on)=155 mohm @ VGS=12 V Rth(ch-c)=2.0 °C/W Tch=150 °C	JAXA-QTS-2030/101	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4050	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=100 V ID=15 A, Rds(on)=69 mohm @ VGS=12 V Rth(ch-c)=2.0 °C/W Tch=150 °C	JAXA-QTS-2030/101	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4051	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=200 V ID=42 A, Rds(on)=33 mohm @ VGS=12 V Rth(ch-c)=0.5 °C/W Tch=150 °C	JAXA-QTS-2030/101	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4052	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=200 V ID=33 A, Rds(on)=69 mohm @ VGS=12 V Rth(ch-c)=1.0 °C/W Tch=150 °C	JAXA-QTS-2030/101	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4053	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=200 V ID=14 A, Rds(on)=155 mohm @ VGS=12 V Rth(ch-c)=2.0 °C/W Tch=150 °C	JAXA-QTS-2030/101	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4054	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=250 V ID=42 A, Rds(on)=45 mohm @ VGS=12 V Rth(ch-c)=0.5 °C/W Tch=150 °C	JAXA-QTS-2030/101	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4055	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=250 V ID=27 A, Rds(on)=98 mohm @ VGS=12 V Rth(ch-c)=1.0 °C/W Tch=150 °C	JAXA-QTS-2030/101	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	JAXA R 2SK4056	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=250 V ID=12 A, Rds(on)=230 mohm @ VGS=12 V Rth(ch-c)=2.0 °C/W Tch=150 °C	JAXA-QTS-2030/101	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4152		JAXA-QTS-2030/102	SMD2	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4153	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=130 V ID=39 A, Rds(on)=39 mohm @ VGS=12 V Rth(ch-c)=0.83 °C/W Tch=150 °C	JAXA-QTS-2030/102	SMD1	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4154	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=130 V ID=15 A, Rds(on)=89 mohm @ VGS=12 V Rth(ch-c)=1.67 °C/W Tch=150 °C	JAXA-QTS-2030/102	SMD0.5	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4155	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=200 V ID=42 A, Rds(on)=16 mohm @ VGS=12 V Rth(ch-c)=0.5 °C/W Tch=150 °C	JAXA-QTS-2030/102	SMD2	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4156	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=200 V ID=32 A, Rds(on)=62 mohm @ VGS=12 V Rth(ch-c)=8.83 °C/W Tch=150 °C	JAXA-QTS-2030/102	SMD1	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4157	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=200 V ID=14 A, Rds(on)=148 mohm @ VGS=12 V Rth(ch-c)=1.67 °C/W Tch=150 °C	JAXA-QTS-2030/102	SMD0.5	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4158	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=250 V ID=42 A, Rds(on)=38 mohm @ VGS=12 V Rth(ch-c)=0.5 °C/W Tch=150 °C	JAXA-QTS-2030/102	SMD2	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4159	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=250 V ID=26 A, Rds(on)=91 mohm @ VGS=12 V Rth(ch-c)=0.83 °C/W Tch=150 °C	JAXA-QTS-2030/102	SMD1	• Fuji Electric Device Technology Co., Ltd.	Export documents required

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	JAXA R 2SK4160	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=250 V ID=12 A, Rds(on)=223 mohm @ VGS=12 V Rth(ch-c)=1.67 °C/W Tch=150 °C	JAXA-QTS-2030/102	SMD0.5	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4185		JAXA-QTS-2030/103	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4186	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=500 V ID=10 A, Rds(on)=0.48 mohm @ VGS=12 V Rth(ch-c)=1.0 °C/W Tch=150 °C	JAXA-QTS-2030/103	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4187	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=500 V ID=4.5 A, Rds(on)=1.15 mohm @ VGS=12 V Rth(ch-c)=2.0 °C/W Tch=150 °C	JAXA-QTS-2030/103	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4188	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=500 V ID=23 A, Rds(on)=0.18 mohm @ VGS=12 V Rth(ch-c)=0.5 °C/W Tch=150 °C	JAXA-QTS-2030/103	SMD2	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4189	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=500 V ID=10 A, Rds(on)=0.48 mohm @ VGS=12 V Rth(ch-c)=0.83 °C/W Tch=150 °C	JAXA-QTS-2030/103	SMD1	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4190	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=500 V ID=4.5 A, Rds(on)=1.15 mohm @ VGS=12 V Rth(ch-c)=1.67 °C/W Tch=150 °C	JAXA-QTS-2030/103	SMD0.5	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4214	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=130 V ID=42 A, Rds(on)=24 mohm @ VGS=12 V Rth(ch-c)=0.5 °C/W Tch=150 °C	JAXA-QTS-2030/101	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4215	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=130 V ID=35 A, Rds(on)=46 mohm @ VGS=12 V Rth(ch-c)=1.0 °C/W Tch=150 °C	JAXA-QTS-2030/101	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	JAXA R 2SK4216	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=130 V ID=15 A, Rds(on)=96 mohm @ VGS=12 V Rth(ch-c)=2.0 °C/W Tch=150 °C	JAXA-QTS-2030/101	TO-254	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4217	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=100 V ID=42 A, Rds(on)=13 mohm @ VGS=12 V Rth(ch-c)=0.5 °C/W Tch=150 °C			• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4218	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=100 V ID=42 A, Rds(on)=28 mohm @ VGS=12 V Rth(ch-c)=0.83 °C/W Tch=150 °C	JAXA-QTS-2030/102	SMD1	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	JAXA R 2SK4219	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=100 V ID=15 A, Rds(on)=64 mohm @ VGS=12 V Rth(ch-c)=1.67 °C/W Tch=150 °C	JAXA-QTS-2030/102	SMD0.5	• Fuji Electric Device Technology Co., Ltd.	Export documents required
1	STRH100N10F SY3HRB	MOSFET, N-channel VGS=+-20 V, V(BR)DS(min.)=100 V IDS=48 A, Rds(on)=35 mohm @ VGS=12 V Rth(j-s)=0.73 °C/W Tj=150 °C	ESCC 5205/021	T0-254AA	• STMicroelectronics	TID tested capability of 70kRADs(Si)

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	2N7389	VGS = ± 20V, Breakdown Voltage DS min. = -100 V, ID = -6.5 A max. thermal resistance = 5 °C/W, max. rds = 0.3 ohms @ Vgs = 12 V Operating Temperature Range (°C.): -55 to +150	MIL-PRF-19500/630	TO-205AF LCC	• INTERNATIONAL RECTIFIER	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	2N2920A (NPN)	hFE min/max: 150/600 @ IC = 10 uA PD (mW): 500 (both section) BV CBO (V): 60 BV CEO (V): 60 IC (mA): 30 Operating Temperature Range (°C.): -65 to +200	ESCC 5207/002	LCC6	• STMicroelectronics	
1	2N3810 (PNP)	hFE min/max: 150/450 @ IC = -1 mA PD (mW): 600 (both section) BV CBO (V): -60 BV CEO (V): -60 IC (mA): 50 Operating Temperature Range (°C.): -65 to +200	ESCC 5207/005	LCC6	• STMicroelectronics	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	BFY180	BV CBO (V): 15 BV CEO (V): 8 Ic (mA): 4.0 hFE min/max: 30/175 @ IC max = 0.25 mA Pout (mW): 30 Nf max: 3.2 dB @ 2 GHz MAG/MSG min: 12 dB @ 2 GHz fT min: 7.0 GHz Variant 01 of ESCC spec. Operating Temperature Range (°C.): -65 to +200	ESCC 5611/006	MICRO X	• INFINEON TECHNOLOGIES A.G.	
1	BFY181	BV CBO (V): 20 BV CEO (V): 12 Ic (mA): 20 hFE min/max: 55/175 @ IC max = 5.0 mA Pout (mW): 175 Nf max: 2,9 dB @ 2 GHz MAG/MSG min: 13.5 dB @ 2 GHz fT min: 7.0 GHz Variant 03 of ESCC spec. Operating Temperature Range (°C.): -65 to +200	ESCC 5611/006	MICRO X	• INFINEON TECHNOLOGIES A.G.	
1	BFY183	BV CBO (V): 20 BV CEO (V): 12 Ic (mA): 65 hFE min/max: 55/160 @ IC max = 5.0 mA Pout (mW): 450 Nf max: 2,9 dB @ 2 GHz MAG/MSG min: 12.5 dB @ 2 GHz fT min: 7.0 GHz Variant 05 of ESCC spec. Operating Temperature Range (°C.): -65 to +200	ESCC 5611/006	MICRO X	• INFINEON TECHNOLOGIES A.G.	
1	BFY193	BV CBO (V): 20 BV CEO (V): 12 Ic (mA): 80 hFE min/max: 50/175 @ IC max = 30 mA Pout (mW): 580 Nf max: 2,9 dB @ 2 GHz MAG/MSG min: 12.5 dB @ 2 GHz fT min: 7.0 GHz Variant 06 of ESCC spec. Operating Temperature Range (°C.): -65 to +200	ESCC 5611/006	MICRO X	• INFINEON TECHNOLOGIES A.G.	
1	BFY280	BV CBO (V): 8 BV CEO (V): 15 Ic (mA): 10 hFE min/max: 30/175 @ IC max = 0.25 mA Pout (mW): 80 Nf max: 2.9 dB @ 2 GHz MAG/MSG min: 13 dB @ 2 GHz fT min: 7.0 GHz Variant 02 of ESCC spec. Operating Temperature Range (°C.): -65 to +200	ESCC 5611/006	MICRO X	• INFINEON TECHNOLOGIES A.G.	
1	BFY405	BV CBO (V): 15 BV CEO (V): 4.5 Ic (mA): 12 hFE min/max: 50/150 @ IC max = 2.0 mA Pout (mW): 55 Nf max: 1.8 dB @ 1.8 GHz Ic (mA): 2.0 fT min: 20 GHz Variant 01 of ESCC spec. Operating Temperature Range (°C.): -65 to +175	ESCC 5611/008	MICRO X	• INFINEON TECHNOLOGIES A.G.	
1	BFY420	BV CBO (V): 15 BV CEO (V): 4.5 Ic (mA): 35 hFE min/max: 50/150 @ IC max = 20 mA Pout (mW): 160 Nf max: 1.7 dB @ 1.8 GHz Ic (mA): 5.0 fT min: 20 GHz Variant 02 of ESCC spec. Operating Temperature Range (°C.): -65 to +175	ESCC 5611/008	MICRO X	• INFINEON TECHNOLOGIES A.G.	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	BFY450	BV CBO (V): 15 BV CEO (V): 4.5 Ic (mA): 100 hFE min/max: 50/150 @ IC max = 20 mA Pout (mW): 450 Nf max: 2.0 dB @ 1.8 GHz Ic (mA): 10 fT min: 18 GHz Variant 03 of ESCC spec. Operating Temperature Range (°C.): -65 to +175	ESCC 5611/008	MICRO X	• INFINEON TECHNOLOGIES A.G.	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	CFY 67 CFY 67_08	Pseudomorphic HEMT Vds (V): 3.5 Vdg (V): 4.5 Id (mA): 60 NF <= 0.8 dB Ga >= 11 dB @ 12 GHz (Variant 01 and 03) NF <= 1.0 dB Ga >= 10.5 dB @ 12 GHz (Variant 02 and 04) Ptot (mW): 200 Operating Temperature Range (°C.): -65 to +150	ESCC 5613/004	MICRO X	• INFINEON TECHNOLOGIES A.G.	Rrecommended for applications in X and Ku bands

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	3901001**B	Low Frequency, Polyimide Insulation Voltage Rating, maximum (Vrms): 600 Insulation Type: Polyimide/Kapton, Light weight Wire size AWG 26 to 12, shielded and jacketed wires only, up to 3 cores Operating Temperature Range (°C): -100 to +200C	ESCC 3901/001	N/A	• AXON'CABLE	
1	3901002**B	Low Frequency, Polyimide Insulation Voltage Rating, maximum (Vrms): 600 Insulation Type: Polyimide/Kapton, medium weight Wire size AWG 28 to 18, single finished wires unjacketed and unshielded Operating Temperature Range (°C): -100 to +200C	ESCC 3901/002	N/A	• AXON'CABLE	
1	L45493-R3901-A18*-**	Wire size AWG 12 to 26, shielded and unshielded up to 7 cores	ESCC 3901/018	N/A	• LEONI SPECIAL CABLES GmbH	
1	L45493-R3901-A21*-**	Wire size AWG 12 to 26, shielded and unshielded up to 7 cores	ESCC 3901/021	N/A	• LEONI SPECIAL CABLES GmbH	
1	MTV-BTV	Low Frequency, PTFE/Polyimide Insulation Voltage Rating, maximum (Vrms): 600 Insulation Type: Extruded PTFE for flexibility Wire size AWG 30 to 18, shielded and unshielded, up to 5 cores Operating Temperature Range (°C): -100 to +200C	ESCC 3901/013	N/A	• NEXANS	
1	Series 55	Low Frequency, 600V, Silver-plated Copper, Extruded Crosslinked Fluoropolymer Insulation. Voltage Rating (max Vrms): 600 Wire size ISO 001, 002, 004, 006, 010, 012, 020, 030, shielded and unshielded , up to 4 cores Operating Temperature Range (°C): -100 to +200C	ESCC 3901/012	N/A	• TYCO ELECTRONICS UK Ltd.	
1	SPL	Low Frequency, Polyimide Insulation. Voltage Rating, maximum (Vrms): 600 Insulation Type: Polyimide/Expanded PTFE Wire size AWG 28 to 12, shielded and unshielded, up to 7 cores Operating Temperature Range (°C): -200 to +200C	ESCC 3901/019	N/A	• W.L.GORE	
1	SPM	Low Frequency, Polyimide/Fluorthermoplast. Voltage Rating, maximum (Vrms): 600 Wire size AWG 30 to 12, shielded and unshielded, up to 7 cores Operating Temperature Range (°C): -200 to +200C	ESCC 3901/018	N/A	• W.L.GORE	
1	SPP	Power Wires for Crimping, Low Frequency Voltage Rating, maximum (Vrms): 600 Insulation Type: Expanded PTFE Tape Wire size AWG 4 and 8 Operating Temperature Range (°C): -200 to +200C	ESCC 3901/017	N/A	• W.L.GORE	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	50CIS	Coaxial, double shield coaxial, shielded and jacketed coaxial. Miniature, 50 Ohms, PTFE Dielectric, Polyimide Jacket Maximum Voltage: 900 Vrms Operating Temperature Range (°C): -100 to + 200	ESCC 3902/001	N/A	• NEXANS	
1	GCX, GTX, GSC, GBL	Flexible, Coaxial, Triaxial and Symmetric Cables, -200 to +180ºC Variants 03 to 06 (Coaxial), 10 to 13 (Triaxial) and 20 to 30 (shielded line) Operating Voltage (Continuous), maximum ratings, (Vrms): Variants 03 180 Variants 04,10,21,22,23,24,26 to 30 200 Variants 06,25 250 Variants 05,11 to 13,20 300 AWG Range: 20, 22, 24, 26, 28, 30 dependent on variant Temperature range (°C): -200 to +180	ESCC 3902/002	N/A	• W.L.GORE	Max AWG 28

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	DBIT	DBIT Transformers 1553, moulded Min. Impedance: 3Kohm Max Leakage Inductance: 6uH Size max (mm): 16 X 16 X H DBIT-X-7P10. H(max): 17mm. Through Hole DBIT-X-3S. H(max): 3,81mm. SMD DBIT-X-5S. H(max): 5mm. SMD DBIT-X-7S. H(max): 7mm. SMD DBIT-X-7P. H(max): 11mm. Through Hole Operating temperature range (°C.): -55 to +125	MSP-003	AS PER SPEC.	• MICROSPIRE	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	T3	Microswitches, Sensitive, 1PDT Contact Rating: 4A, 28 Vdc, Contact Configuration SPDT Operating Temperature Range (°C): -55 to + 125	ESCC 3701/003	AS PER SPEC.	• ABB ENTRELEC	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	47	Contact Configuration SPST, Contact Rating: 4A, 30 Vdc Difference between contact opening temp. and closing temp. (°C max): For switching temp < -31°C 10 For -30 < switching temp > +79°C 5 or 10 For switching temp > +80°C 15 Variant 02 Dimensions (max., mm.) : 16.2 DIA, 11.5 height Minimum temperature gradient: 0.11 deg.C/minute Operating Temperature Range (°C): -50 to + 150	ESCC 3702/001	AS PER SPEC.	• COMEPA	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	Coaxial Attenuators	R.F. Attenuators, Fixed, Coaxial. Frequency Range (GHz): 0 - 22 Attenuation value range (dB): 0 - 20 Operating Temperature Range (°C): -55 + 125	ESCC 3403/005	AS PER SPEC.	• RADIALL	
2	R4042106	RF coaxial load 50W, DC to 18GHz, 1W SMA male connector Operating temperature range: -55 to +125 °C	ESCC 3403/004	SMA connector	• RADIALL	
2	R4043706	RF coaxial load 50W, DC to 18GHz, 2W TNC male connector Operating temperature range: -55 to +125 °C	ESCC 3403/010	TNC connector	• RADIALL	
1	RF Coaxial Loads	Passive Devices, RF, Coaxial, Loads Frequency Range (GHz): 0 - 22 Rated P (in) (W): 1 Impedance (Ohm): 50 VSWR (Max.): Type 0<f(GHz)<= 4; 4<f(GHz)< = 12.4; 12.4<f(GHz)< = 18; 18<f(GHz)<= 22 1 1.05 1.10 1.15 1.20 2 1.05 1.15 1.20 1.25 Operating Temperature Range (°C): -55 to + 125	ESCC 3403/006	AS PER SPEC.	• RADIALL	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
1	8090.0832.G03	Pulse Width Modulator Controller for DC/DC Converters for flyback, forward, push-pull and half bridge topologies, primary supply voltage range: 18 to 110V, Iout=1 mA for Vref @ 2.5 and 5.0V, Max. oscillator frequency: 250 kHz, Under-voltage lockout with hysteresis, Over-voltage protection, Ccurrent comparator, Voltage loop, Soft-start, Adjustable, Surface Mount, Hermetically Sealed,	8090.0832-1, Issue 2.5, 23/03/2009	CQFP-84	• Thales Alenia Space - ETCA	According to PID 9100.0683, Issue 4.5 dated 10/09/2010 and HTIF HYB-GEN-ES-0017-01-02-HTIF-80900832G03, Issue 1.2 dated 20/08/2010
2	A0000055 (H757)	Thick Film Hermetic Hybrid - MIL-STD-1553B Dual Transceiver (Integrated MIL-STD-1553B Dual Complete Transmitter + MIL-STD-1553B Dual Complete Receiver) Operational Rated Temperature -30 to +85 °C	DPN-A5-ST-0426 Ed.02 Rev.00	Metallic FP-46	• Astrium Velizy	PID GM.HYBR.NT.220.V.MM S Ed.13 Rev.00
2	A0005367	Thick Film Hermetic Hybrid - MIL-STD-1553B Remote Terminal Coupler (Integrated MIL-STD-1553B Single Transceiver + MIL-STD-1553B Remote Terminal ASIC) Operational Rated Temperature -30 to +85 °C	A5-PS-CA5-491-MMV Ed.00 Rev.0+DPN-A5-ST-0376 Ed 01(ASP20-RT)	Metallic FP-64	• Astrium Velizy	PID GM.HYBR.NT.220.V.MM S Ed.13 Rev.00
2	MCM 21020 DSP BR334 (A0008778)	Multi-chip Module Digital Signal Processor 21020 (TSC21020E floating-point DPS + DPC co-prpcessor + 128 kwords on-module SRAM + cascadable timers, full duplex UARTs, 1355 serial links, watchdog timers and PWM channels). Operational Rated Temperature -30 to +85 °C	MCM-DSP-SPEC-DA0018353-V-ASTR Ed.00 Rev.06	CQFP-334	• Astrium Velizy	PID GM.HYBR.NT.879.V.AS TR Ed.03 Rev 00. Det. Spec. is MCM DSP21020 Procurement specification. Replaces the old version MCM2102-A0005305 (obsolete)
2	MCM ERC32 (A0008608)	Multi Chip Module Software processing module (20 Mips at 25 MHz) based on a CPU core embedding the ERC32SC, VASI ASIC chip and memories Operational Rated Temperature -30 to +85 °C	MCM-ERC32-SP-00306-V-ASTR Ed.00 Rev.01	Dual-cavity co-fired	• Astrium Velizy	PID GM.HYBR.NT.879.V.AS TR Ed.03 Rev 00. Det. Spec. is MCM ERC32 procurement specification.

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	AGT-01	Cascadable Amplifier (5-250 MHz) High Gain two stage 31 dB Medium output level +8.5 dBm Low VSWR < 1.3:1 Supply power range +8V to +15V	TD200368-178	TO-8	• CHELTON TELECOM & MICROWAVE	

EPPL Part	Part Type	Description	Detail Specification	Package	Manufacturer(s)	Remarks
2	MRF-01	Image Reject Mixer, variant V1=RF>LO, variant V2=RF<LO, LO to RF@1500 to 1650MHz=28 dB min., LO to IF@90 to 1510MHz= 35 dB min., Image Reject Ratio = 20 dB min., Hermetically Sealed, Ceramic Flatpack Package. Operating temperature range: -55 to +125 °C	TD200450-178D	FP	• CHELTON TELECOM & MICROWAVE	
2	MXF-01	Double Balanced Mixer (0.5 to 500 MHz), Conversion Loss: 7 dB max., Isolation: LO to RF, LO to IF @ midband: 35 dB min., RF to IF @ midband: 25 dB min., Hermetically Sealed. Operating Temperature Range: -55 to +125 °C	TD200369-178 Issue a	FP	• CHELTON TELECOM & MICROWAVE	
2	MXF-02	Double balanced Mixer 10 to 1500 MHz Operating temperature range: -55 to +125 °C	TD200370-178 Issue a	FP	• CHELTON TELECOM & MICROWAVE	
2	MXF-03	Termination Insensitive Mixer (1 to 3500 MHz), Isolation:LO to RF and LO to IF: 20 dB min. and RF to IF : 18 dB min., SSB Conversion Loss (RF to IF [60MHz] port): from 7.8 to 9.8 dB max., 3rd order intermodulation ratio degradation @ IF VSWR 3: 1: 3 dB typ., Hermetically Sealed, Metal Flatpack package. Operating Temperature Range: -55 to +125 °C	TD200542-178 Issue B	FP	• CHELTON TELECOM & MICROWAVE	