

INTEGRATED CIRCUITS, SILICON MONOLITHIC, CMOS, CELL-BASED ARRAY, BASED ON TYPE ATC18RHA ASIC FAMILY				357A
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 9000	Microchip Technology Nantes France	Qualification	CNES	Apr 2019
Detail ESCC 9202/080, 9512/004, 9304/165, 9512/005				
The Technology Flow is described into the current QML document (REP006).				
9202/080	Integrated circuits, silicon monolithic, CMOS, cell-based array		Based on type ATC18RHA	
Available standard components:				
9512/004	Integrated Circuits, Silicon, 32-bit SPARC Processor		Based on type AT697F	
9304/165	Integrated Circuits, Silicon, monolithic, CMOS digital, Field Programmable Gate Array, 280000 gates		Based on type ATF280F	
9512/005	Integrated Circuits, Silicon, monolithic, SPARC V8 GNSS Controller		Based on type AT991	

INTEGRATED CIRCUITS, CMOS, CELL-BASED ARRAY, BASED ON ATMX150RHA ASIC FAMILY				359A
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 9000 Detail ESCC 9202/083	Microchip Technology Nantes France	Qualification	ESA/ESTEC	Apr 2019
Remarks				
The Technology Flow is described into the current QML document (REP006). The qualified range includes variants 75 to 164 from ESCC 9202/083 (Flat-Substrate package).				
9202/083	Integrated circuits, CMOS, cell-based array. Ph2, Digital only, up to 22Mgates, 5ML+ thick metal layer.		Based on type ATMX150RHA	

INTEGRATED CIRCUITS, SILICON, MONOLITHIC, RADIATION-HARDENED 32-BIT ARM CORTEX-M7 MICROCONTROLLER				372A		
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date		
Generic ESCC 9000 Detail ESCC 9512/006	Microchip Technology Nantes France	Qualification	ESA/ESTEC	May 2021		
		Remarks SAMRH71 rev.D (variant 01) has been replaced by SAMRH71 rev.E (variant 02) having enhanced ESD and SEL performances.				
Qualified range:						
Detail spec	Variant Number	Based on Type	Case	Terminal Material and Finish	Weight max g	Total Dose Radiation Level Letter
9512/006	02	SAMRH71E	CQFP-256	D2	18	R [100krad(Si)]
Operating Temperature Range (°C): -55 to +125						

INTEGRATED CIRCUITS, SILICON, MONOLITHIC, RADIATION-HARDENED 32-BIT ARM CORTEX-M7 MICROCONTROLLER (SAMV71RT)				389		
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date		
Generic ESCC 9000 Detail ESCC 9512/007	Microchip Technology Nantes France	Qualification	CNES	July 2024		
Remarks						
Qualified range:						
Detail spec	Variant Number	Based on Type	Case	Terminal Material and Finish	Weight max g	Total Dose Radiation Level Letter
9512/007	01	SAMV71RT	CQFP-144	D2	7	E [20krad(Si)]
Operating Temperature Range (°C): -55 to +125						

INTEGRATED CIRCUITS, SILICON, MONOLITHIC, RADIATION TOLERANT SINGLE PORT GIGABIT ETHERNET COPPER PHY (VSC8541RT)				392		
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date		
Generic ESCC 9000 Detail ESCC 9405/020	Microchip Technology Nantes France	Qualification	CNES	May 2025		
Remarks						
Qualified range:						
Detail spec	Variant Number	Based on Type	Case	Terminal Material and Finish	Weight max g	Total Dose Radiation Level Letter
9405/020	01	VSC8541RT	CQFP-68	D2	7.5	F [50krad(Si)]
Operating Temperature Range (°C): -55 to +125						