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What is "[Embedded - Microcontrollers](#)"?

"[Embedded - Microcontrollers](#)" refer to small, integrated circuits designed to perform specific tasks within larger systems. These microcontrollers are essentially compact computers on a single chip, containing a processor core, memory, and programmable input/output peripherals. They are called "embedded" because they are embedded within electronic devices to control various functions, rather than serving as standalone computers. Microcontrollers are crucial in modern electronics, providing the intelligence and control needed for a wide range of applications.

Applications of "[Embedded - Microcontrollers](#)"

Details

Product Status	Active
Core Processor	e200z4
Core Size	32-Bit Dual-Core
Speed	200MHz
Connectivity	CANbus, Ethernet, I ² C, LINbus, SCI, SPI, UART/USART
Peripherals	DMA, LVD, POR, Zipwire
Number of I/O	-
Program Memory Size	2MB (2M x 8)
Program Memory Type	FLASH
EEPROM Size	-
RAM Size	128K x 8
Voltage - Supply (Vcc/Vdd)	3.5V ~ 5.5V
Data Converters	A/D 12b SAR, 16b Sigma-Delta
Oscillator Type	Internal
Operating Temperature	-40°C ~ 125°C (TA)
Mounting Type	Surface Mount
Package / Case	176-LQFP
Supplier Device Package	176-LQFP (24x24)
Purchase URL	https://www.e-xfl.com/product-detail/nxp-semiconductors/spc5743rk1mlu5




SPC5743RK1MLU5 Information[Product Summary Page](#)[General Information](#)[Package Information](#)[Environmental and Compliance Information](#)[Manufacturing Information](#)[Ordering Information](#)[Operating Characteristics](#)**General Information**

Parameter	Value
Part Number	SPC5743RK1MLU5
Description	Freescale 32-bit MCU, Triple Power Arch core, 3MB Flash, 200MHz, -40/+125degC,Automotive Qual,LQFP17
Product Line	G9FP57LU
PTI	JBQF
Material Type	Tested Packaged Device
Life Cycle Description (code)	PRODUCT RAPID GROWTH
Status	Active
SafeAssure Functional Safety	ISO 26262
Application/Qualification Tier	AUTO; >=10 YEARS APPLICATION LIFE

Package Information

Parameter	Value
Package Type and Termination Count	QFP 176
Package Description and Mechanical Drawing	LQFP 176 24*24*1.4P0.5
Device Weight(g)	1.86850
Package Material	Plastic
Mounting Style	Surface Mount
Package Length (nominal)(mm)	24.000
Package Width (nominal)(mm)	24.000
Package Thickness (nominal)(mm)	1.600
Tape & Reel	No

Environmental and Compliance Information

Parameter	Value
Pb-Free	
RoHS Compliant	
Halogen Free	Yes
Material Composition Declaration (MCD)	Download MCD Report  Download MCD Report
RoHS Certificate of Analysis (CoA)	Download RoHS CoA Report
2nd Level Interconnect	e3
Moisture Sensitivity Level (MSL)	3
Floor Life	168 HOURS
Peak Package Body Temperature (PPT)(°C)	260
Maximum Time at Peak Temperature (s)	40
Number of Reflow Cycles	3
REACH SVHC	NXP REACH Statement
UL94 (plastics flammability test)	V0: Burning stops within 10 seconds on a vertical specimen; no drips allowed

Manufacturing Information

Parameter	Value
Micron Size(μm)	.05

Ordering Information

Parameter	Value
Minimum Package Quantity (MPQ)	200
MPQ Container	BRICK
Exempt from Minimum Delivery Value	Yes
Preferred Order Quantity (POQ)	400
POQ Container	BOX
Leadtime (weeks)	20
Export Control Classification Number (US)	3A991A2

Harmonized Tariff (US) Disclaimer	8542.31.0000
CCATS Document	-
ENC Status	-
Other Trade Compliance Documents	-

Operating Characteristics

Parameter	Value
ADC (ch)	64
Additional Features	Zipwire
Ambient Operating Temperature (Min-Max) (°C)	-40 to 125
CAN	4
Core: Number of cores (Spec)	2
Core: Type	Z4
Internal Flash (KB)	2000
Internal RAM (KB)	128
Operating Frequency (Max) (MHz)	200
Sample Exception Availability	Y
SPI	4
Total DMA Channels	64