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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 "<u>Embedded -</u> <u>Microcontrollers</u>"

#### Details

E·XFI

Product Status	Active
Core Processor	AVR
Core Size	8-Bit
Speed	20MHz
Connectivity	I <sup>2</sup> C, SPI, UART/USART
Peripherals	Brown-out Detect/Reset, POR, PWM, WDT
Number of I/O	23
Program Memory Size	8KB (4K x 16)
Program Memory Type	FLASH
EEPROM Size	512 x 8
RAM Size	1K x 8
Voltage - Supply (Vcc/Vdd)	1.8V ~ 5.5V
Data Converters	A/D 8x10b
Oscillator Type	Internal
Operating Temperature	-40°C ~ 85°C (TA)
Mounting Type	Surface Mount
Package / Case	28-VFQFN Exposed Pad
Supplier Device Package	28-VQFN (4x4)
Purchase URL	https://www.e-xfl.com/product-detail/microchip-technology/atmega88pa-mmhr

Email: info@E-XFL.COM

Address: Room A, 16/F, Full Win Commercial Centre, 573 Nathan Road, Mongkok, Hong Kong

#### **COMPONENTS PRODUCT INFORMATION**





The FI-D series are high speed differential transmission connectors for LCD panel.

#### Features

- ■Ground condition is reinforced to improve EMI characteristics.
- Soldering connection of plug side is possible at once. (compatible to twin coaxial and discrete cable)
- Height variations for receptacle, can be selected from 4 heights. Mating height: 4.40mm, 7.35mm, 8.50mm, and 9.35 mm

#### **General Specifications**

- ■No. of contacts :44 pos.
- Contact resistance: 70m ohm max.
- Dielectric withstanding voltage: 500Vr.m.s per minute
- ■Operating temperature: -40 Deg. C to +85 Deg. C
- ■Rated current: 0.5A /1pin
- Lifetime: 30 times
- ■Applicable cable: Contact No. 1 to 17 Discrete (AWG #40) or Coaxial (AWG #40) Contact No. 18 to 44 Twin-Coaxial (AWG #32)

### Materials and Finishes

Components	Materials /Finishes		
Receptacle			
	Copper Alloy/		
Contact	Contact area: 0.76um min. Au plating over Ni		
	Terminal area: Sn plating over Ni		
Insulator	Thermoplastic resin UL94V-0 black		
Shell	Stainless steel: Sn plating		
Plug			
	Copper Alloy/		
Contact	Contact area: 0.76um min. Au plating over Ni		
	Terminal area: Sn or Au flash plating over Ni		
Insulator	Thermoplastic resin UL94V-0 black		
Shell	Copper alloy: Sn plating		
	Shell (plug side)		
Shell	Stailess steel: Sn plating over Ni		

Ordering Information



# Receptacle side: FI-TD44SB-LE (SJ101013) Emboss packaged product: FI-TD44SB-LE-R1500 (SJ101015)





<u>Unit: mm</u>

Part Number	SJ Drawing	Dimension A	Dimension B	
FI-TD44SB-VF93 (-R750)	SJ100866 (SJ100867)	7.65	9.35	
FI-TD44SB-VF85 (-R750)	SJ102166 (SJ102167)	6.80	8.50	
FI-TD44SB-E (-R750)	SJ101238 (SJ101239)	5.65	7.35	
FI-TD44SB-LE (-R1500)	SJ101013 (SJ101015)	2.70	4.40	

# Plug side: FI-D44C2-E (SJ101236)







## Mating height



U	n	iſ	r	r	l	r	r	1

Part Number	SJ Drawing			
FI-D44C2-E	SJ101236			
FI-D44C2-SH-BE-8000	SJ101237			

## Japan Aviation Electronics Industry, Limited

Product Marketing Division Aobadai Building, 3-1-19, Aobadai, Meguro-ku, Tokyo 153-8539 Phone: +81-3-3780-2787 FAX: +81-3-3780-2946 **Notice:** Products shown in this leaflet are made for the applications listed below. However, if the above-mentioned products are to be used in aerospace devices, marine cable-connection devices, atomic power control systems, medical equipment for life-support systems, or any other specific application requiring extremely high reliability, please contact JAE for further information.

Recommended applications: computers, office machines, measuring devices,

telecommunication devices (terminals, mobile devices), AV devices, household applications, FA devices, etc.

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