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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	PIC
Core Size	8-Bit
Speed	32MHz
Connectivity	I ² C, LINbus, SPI, UART/USART
Peripherals	Brown-out Detect/Reset, POR, PWM, WDT
Number of I/O	25
Program Memory Size	7KB (4K x 14)
Program Memory Type	FLASH
EEPROM Size	256 x 8
RAM Size	512 x 8
Voltage - Supply (Vcc/Vdd)	2.3V ~ 5.5V
Data Converters	A/D 24x10b; D/A 1x5b
Oscillator Type	Internal
Operating Temperature	-40°C ~ 125°C (TA)
Mounting Type	Surface Mount
Package / Case	28-UFQFN Exposed Pad
Supplier Device Package	28-UQFN (4x4)
Purchase URL	https://www.e-xfl.com/product-detail/microchip-technology/pic16f18854-e-mv

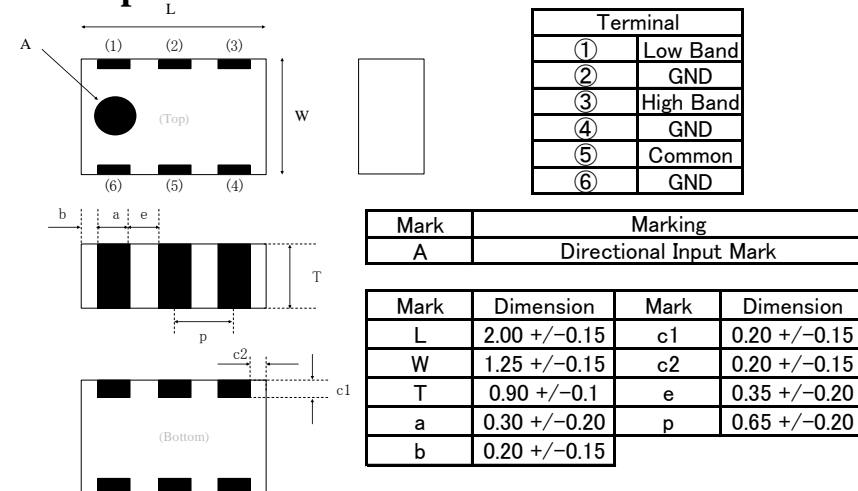
Diplexer for LTE (High Attenuation type)

FI 212P082934-T

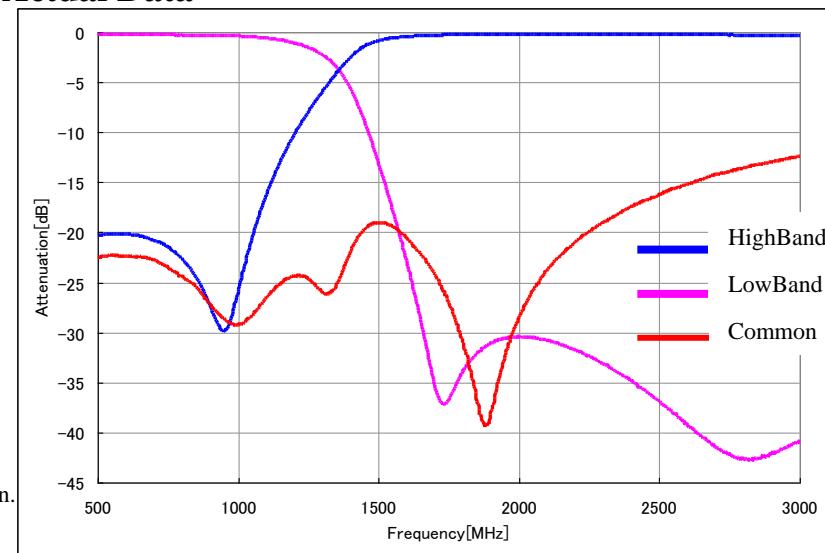
Electrical Characteristics

	Condition	Specification	Measured Data Ta=+25degC	Note
Low Band	Pass band frequency	698 - 960 MHz	←	
	Insertion Loss at Pass band	Pass band	-	0.35dB
			0.50dB Max. (-40~+85deg-C)	ETC
	V.S.W.R	Pass band	1.4 Max	1.2
	Attenuation	1554-1580MHz	15.0dB Min.	17dB
			10.0dB Min.	-
		1710-2110MHz	25.0dB Min.	29dB
		2110-2155MHz	25.0dB Min.	30dB
		2155-2690MHz	25.0dB Min.	30dB
High Band		2155-7830MHz	12.0dB Min.	23dB
	Impedance	Common Port	50 ohm	-
		Low Band Port	50 ohm	-
	Pass band frequency 1	1710 - 2170 MHz	←	
	Pass band frequency 2	2500 - 2690 MHz	←	
	Insertion Loss at Pass band	Pass band 1	-	0.32dB
			0.50dB Max. (-40~+85deg-C)	ETC
		Pass band 2	-	0.29dB
			0.55dB Max. (-40~+85deg-C)	ETC
Isolation	V.S.W.R	Pass band 1	1.4 Max	1.2
		Pass band 2	1.8 Max	1.5
	Attenuation	0.3-960MHz	17.0dB Min.	20dB
	Impedance	Common Port	50 ohm	-
		High Band Port	50 ohm	-
	Isolation	698-960MHz	17.0dB Min.	20dB
		1710-2690MHz	25.0dB Min.	29dB

Shapes & Dimensions



Actual Data



The data is reference only. Electrical characteristics vary depending on environment or measurement condition. TAIYO YUDEN reserves the right to make change to the Date at any time without notice. Before making final selection, please check product specification

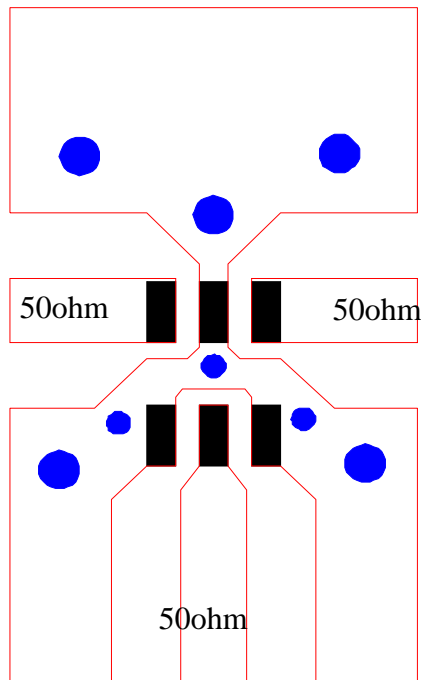
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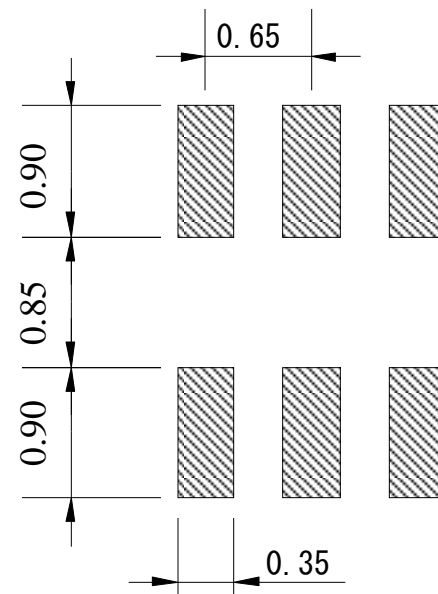
Jul/17/2014

The Example of a Land Pattern

Electrodes pattern



Resist pattern (aperture size)



Line width be designed to match 50ohm characteristic impedance.

Unit : mm

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