## Datasheet



CONMCX013 MCX Jack PCB Cutout Edge Mount Connector

Operating from 0 GHz to 8.5 GHz, the CONMCX013 provides high performance and reliability in a small package. Mounting in a cutout/notch in a printed circuit board (PCB) and available in tape and reel packaging, the CONMCX013 is more compact than standard board edge mount connectors and is compatible with pick and place machines for high volume manufacturing. Additionally, all Linx connectors meet RoHS lead free standards and are tested to meet requirements for corrosion resistance, vibration, mechanical and thermal shock.



#### Features

- 0 to 8.5 GHz operation
- MCX (female socket) connection
  - Gold plated brass connector body
  - Gold plated beryllium copper center contact
- Direct surface-mount PCB attachment
- Reflow- or hand-solder assembly

#### **Electrical Specifications**

Impedance	50 Ω		
Frequency Range	0 to 8.5 GHz		
Insulation Resistance	1000 MΩ Min.		
Voltage Rating	750 V RMS		
Contact Resistance	Center: $\leq 5.0 \text{ m}\Omega$ Outer: $\leq 1.0 \text{ m}\Omega$		
Selected Frequencies	6 GHz	8.5 GHz	
Insertion Loss (dB max)	-0.51	-0.77	
VSWR (max)	1.2	1.4	

#### Ordering Information

Part Number	Description
CONMCX013	MCX jack (female socket), PCB cutout edge mount connector in trays (100 per tray)
CONMCX013-TMCX jack (female socket), PCB cutout edge mount connector in tape and reel (1000 per reel)	

Available from Linx Technologies and select distributors and representatives.

## CONMCX013

### **Product Dimensions**



#### Figure 1. Product Dimensions for the CONMCX013 Connector

#### **Connector Components**

	CONMCX013	
Connector Part	Material	Finish
Connector Body	Brass	Gold
Center Contact (fem. socket)	Berylium Copper	Gold
Insulator	PTFE	_

### **Recommended PCB Footprint**

Figure 2 shows the recommended PCB footprint and PCB cutout dimensions.





#### Mechanical Specifications

	CONMCX013	
Mounting Type	PCB board edge	
Fastening Type	Snap-on coupling	
Connector Durability	500 cycles min.	
Interface in Accordance with	CECC 22220	
Weight	1.2 g (0.04 oz)	



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## **Insertion Loss**

Figure 3 shows the Insertion Loss for the CONMCX013 connector. Insertion loss is the loss of signal power (gain) resulting from the insertion of a device in a transmission line.



Figure 3. Insertion Loss for the CONMCX013 Connector

### VSWR

Figure 4 provides the voltage standing wave ratio (VSWR) across the connector's bandwidth. VSWR describes how efficiently power is transmitted through the connector. A lower VSWR value indicates better performance at a given frequency.







## **Environmental Specifications**

MIL-STD/Method/Test Condition			
Corrosion (Salt spray)	ASTM B-117		
Thermal Shock	MIL-STD-202 Method 107 test condition F		
Vibration	MIL-STD-202 Method 204 test condition B		
Mechanical Shock	MIL-STD-202 Method 213 test condition B		
Temperature Range	-65 °C to +165 °C		
Environmental Compliance	RoHS		

#### **Reflow Solder Profile**

Figure 5 shows the temperature and time data for reflow soldering the connector to a printed circuit board.



Figure 5. Recommended Reflow Solder Profile



## Packaging Information

Figure 6 shows the dimensions of the tape in which the CONMCX013-T connectors are packaged. Reel dimensions are provided in Figure 7.



Figure 6. Tape Specifications for the CONMCX013-T Connector



Reel Dimensions			
Symbol	Qty	Unit	
QTY per reel	1000	pcs	
Tape width	24.00	mm	
Α	Ø 330 ±1	mm	
В	Ø 100 ±0.5	mm	
С	Ø 13.00 ±0.2	mm	
E	$2.2 \pm 0.5$	mm	
W	24 ±0.5	mm	
W1	28.4 ±0.2	mm	

Figure 7. Reel Specifications for the CONMCX013-T Connector



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