## Information





Prod.

FCCC TX Jumper

Prod No.

FC-1103

Application and Properties:

RX jumper made from rg223 coaxial cable and RF SMA connectors. The TX jumper is used for wireless telecommunications applications in dc to 3GHz frequency range. The TX jumper uses 90 degree right angle coax cable connector. Cable and connectors have been soldered together in the production operation. Security of the joint and their concentric is guaranteed by a tight plastic cover. Quality of the product is tested according to IEC and MIL Standards

## Other Details

- High quality and excellent performances
- High reliability and safety
- Fast and easy installation
- Low attenuation and low loss and low VSWR
- Excellent electrical conductivity
- High operating voltage
- Operating frequency to 3GHz
- Available in variety of lengths
- Resistant to flames, sparks & Flame propagation
- Flexible
- Resistant to aging
- High dimensional stability
- Compliance with military and international standards (IEC, etc)

## Technical Specification

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## General specifications

Cable

RG-223

Connector

SMA-Male-Right Angle SSMA-Male-Right Angle

Impedance Frequency Range 50ohms DC~3GHz

Cable specificationh

Construction

Material Silver-coated copper 0.89±0.01

**Inner Conductor** 

Diameter, mm Material

PE

Insulation

Diameter, mm

1st shield

3.0±0.10 Tinned copper

Outer Conductor         2nd shield Diameter, mm         Tinned copper 4.18 (Nom.)           Jacket         Diameter, mm         4.18 (Nom.)           Mechanical specification           Operating temperature range Single Bending Radius, mm         20°C to +80 °C           Electrical specification           Characteristic impedance Capacitance         101 pF per m           Inductance (µH)         0.077           Nominal propagation velocity         66 %           Voltage Rating, Vrms         1900           Max. Operating Frequence, GHz         12.4           Attenuation and rating power           Frequency           MHz         13,3           200         20.4           400         2.7 4           500         32.0           1000         45.5           3000         84.9           5000         109.9           11000         177.5           Connector specification           Gender         Male           Termination Method         Crimp, Solder           Body Orientation         Right Angle           Impedance         500           Operating Frequency Range         DC -	Continuance					
Diameter, mm   Material   PVC	, gets	2.1.16	T. Cres			
Diameter, mm	Outer Conductor					
Mechanical specification						
Mechanical specification           Operating temperature range         ≥0°C to +80 °C           Single Bending Radius, mm         25           Electrical specification           Characteristic impedance         50±2 Ω           Capacitance         101 pF per m           Inductance (µH)         0.077           Nominal propagation velocity         66 %           Voltage Rating, Vrms         1900           Max.Operating Frequence, GHz         12.4           Attenuation and rating power           Frequency           MHz         "ypical Attenuation           @20°C,dB/100m         13.3           200         20.4           400         27.4           500         32.0           400         27.4           500         32.0           1000         45.5           3000         84.9           5000         109.9           11000         177.5           Connector specification           Gender         Male           Termination Method         Crimp, Solder           Body Orientation         Right Angle           Impedance         50Q	Jacket					
Operating temperature range   20°C to +80 °C			5.4±0.15			
Single Bending Radius, mm   Electrical specification						
Characteristic impedance			) ℃			
$ \begin{array}{c cccc} \textbf{Characteristic impedance} & 50 \pm 2 \ \Omega \\ \textbf{Capacitance} & 101 \ pF \ per \ m \\ \textbf{Inductance (µH)} & 0.077 \ N \\ \textbf{Nominal propagation velocity} & 66 \% \\ \textbf{Voltage Rating, Vrms} & 1900 \\ \textbf{Max.Operating Frequence, GHz} & 12.4 \\ \textbf{Attenuation and rating power} \\ \hline Frequency & Typical Attenuation & 200^{\circ}\text{C,dB/100m} \\ 100 & 13.3 & 200 & 20.4 \\ 4400 & 27.4 & 32.0 \\ 500 & 32.0 & 32.0 \\ 1000 & 45.5 & 3000 & 84.9 \\ 5000 & 109.9 & 11000 & 177.5 \\ \hline \textbf{Connector specification} & Male \\ \hline \textbf{Termination Method} & Crimp, Solder & Body Orientation & Right Angle Impedance & 5000 & 0.09.9 \\ \textbf{Operating Frequency Range} & DC-3GHz & 5000 \ Max & Contact resistance & Center Contact & $\leq 5 \ m\Omega \ Outer Contact & $\leq 2 \ m\Omega \ VSWR & $\leq 1.2$ \\ \hline                                  $	Single Bending Radius, mn					
Capacitance   101 pF per m   0.077   Nominal propagation velocity   66 %   Voltage Rating, Vrms   1900   Max.Operating Frequence, GHz   12.4   Attenuation and rating power   Frequency   Typical Attenuation   $^{\circ}$						
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Nominal propagation velocity         66 %           Voltage Rating, Vrms         1900           Max.Operating Frequence, GHz         12.4           Attenuation and rating power           Frequency         Typical Attenuation           MHz         @20°C,dB/100m           100         13.3           200         20.4           400         27.4           500         32.0           1000         45.5           3000         84.9           5000         109.9           11000         177.5           Connector specification           Gender         Male           Termination Method         Crimp, Solder           Body Orientation         Right Angle           Impedance         50Ω           Operating Frequency Range         DC-3GHz           Working Voltage         500V max           Contact resistance         2 5 mΩ           Outer Contact         ≤ 5 mΩ           Outer Contact         ≤ 5 mΩ           VSWR         ≤ 1.2			m 8°			
Voltage Rating, Vrms       1900         Max.Operating Frequence, GHz       12.4         Attenuation and rating power         Frequency       Typical Attenuation         MHz       200°C,dB/100m         100       13.3         200       20.4         400       27.4         500       32.0         1000       45.5         3000       84.9         5000       109.9         11000       177.5         Connector specification         Gender       Male         Termination Method       Crimp, Solder         Body Orientation       Right Angle         Body Orientation       Right Angle         Impedance       50Ω         Operating Frequency Range       DC-3GHz         Working Voltage       500V max         Contact resistance       Center Contact       ≤ 5 mΩ         Outer Contact       ≤ 2mΩ         Insulation resistance       ≥ 5000 MΩ         VSWR       ≤ 1.2			J.			
Max.Operating Frequence, GHz         Attenuation and rating power         Frequency       Typical Attenuation         MHz       "20°C,dB/100m"         100       13.3         200       20.4         400       27.4         500       32.0         1000       45.5         3000       84.9         5000       109.9         11000       177.5         Connector specification         Gender       Male         Termination Method       Crimp, Solder         Body Orientation       Right Angle         Impedance       50Ω         Operating Frequency Range       DC-3GHz         Working Voltage       500V max         Contact resistance       Center Contact       ≤ 5 mΩ         Insulation resistance       ≥ 5000 MΩ         VSWR       ≤ 1.2						
Attenuation and rating power           Frequency MHz         Typical Attenuation @20°C,dB/100m           100         13.3           200         20.4           400         27.4           500         32.0           1000         45.5           3000         84.9           5000         109.9           11000         177.5           Connector specification           Gender         Male           Termination Method         Crimp, Solder           Body Orientation         Right Angle           Impedance         50Ω           Operating Frequency Range         DC-3GHz           Working Voltage         500V max           Contact resistance         Center Contact         ≤ 5 mΩ           Outer Contact         ≤ 2mΩ           Insulation resistance         ≥ 5000 MΩ           VSWR         ≤ 1.2	4.	- 44	185			
Frequency   Typical Attenuation   @20°C, dB/100m     100						
MHz       @20°C,dB/100m         100       13.3         200       20.4         400       27.4         500       32.0         1000       45.5         3000       84.9         5000       109.9         11000       177.5         Connector specification         Gender       Male         Termination Method       Crimp, Solder         Body Orientation       Right Angle         Impedance       50Ω         Operating Frequency Range       DC-3GHz         Working Voltage       500V max         Contact resistance       Center Contact       ≤ 5 mΩ         Outer Contact       ≤ 2mΩ         Insulation resistance       ≥ 5000 MΩ         VSWR       ≤ 1.2						
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Connector specification				
$\begin{array}{c c} \textbf{Body Orientation} & \textbf{Right Angle} \\ \textbf{Impedance} & 50\Omega \\ \textbf{Operating Frequency Range} & DC \sim 3 \text{GHz} \\ \textbf{Working Voltage} & 500V \text{ max} \\ \textbf{Contact resistance} & Center Contact & \leq 5 \text{ m}\Omega \\ \textbf{Outer Contact} & \leq 2 \text{m}\Omega \\ \textbf{Insulation resistance} & \geq 5000 \text{ M}\Omega \\ \textbf{VSWR} & \leq 1.2 \\ \end{array}$	Gender					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Termination Method	Crimp, Solo	Crimp, Solder			
	Body Orientation	Right Ang	Right Angle			
	Impedance	50Ω	50Ω			
	Operating Frequency Rang	Je DC~3GH	Z			
$\begin{array}{c c} \text{Contact resistance} & \text{Outer Contact} & \leq 2m\Omega \\ \hline & \text{Insulation resistance} & \geq 5000 \text{ M}\Omega \\ \hline & \text{VSWR} & \leq 1.2 \\ \hline \end{array}$	Working Voltage	500V ma	Х			
	Contact resistance	Center Contact	≤ 5 mΩ			
VSWR	Contact resistance	Outer Contact	≤2mΩ			
	Insulation resistance	≥ 5000 MΩ				
Contact/Pin Material Brass Nickel	VSWR 35	≤ 1.2	Carlo.			
	Contact/Pin Material	Brass	Nickel			

