110 GHz 1×4 Right-Angle PCB Multi-Port Connector

Four 50 Ω channels | 2.54 mm contact pitch

P/N: VST-TWS90K-04

PRODUCT OVERVIEW

A four-channel right-angle RF connector providing independent 50 Ω paths through a compact 1×4 interface. Its 2.54 mm contact pitch and screw-retained construction support board-edge launch for RF/mmWave test fixtures and high-density PCB interconnects.



DC–110 GHz	1×4	2.54 mm	Edge Mount
FREQUENCY	CHANNELS	CONTACT PITCH	PCB MOUNTING

KEY FEATURES

- Four 50 Ω signal paths in a compact 1×4 interface
- DC–110 GHz operation for RF / mmWave test access
- Gold-plated BeCu contacts with PEEK insulator
- Right-angle launch for PCB-edge integration
- Screw-retained mounting for secure installation
- ≥1,000 mating cycles for repeated connections

TECHNICAL SPECIFICATIONS

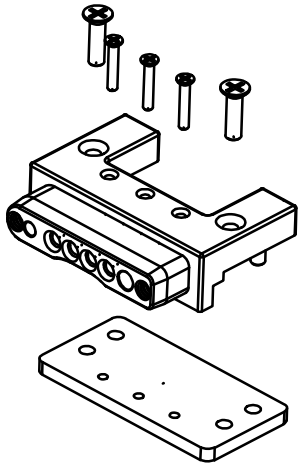
ELECTRICAL	
Frequency range	DC–110 GHz
Nominal impedance	50 Ω / channel
Return loss, DC–70 GHz	≥ 15 dB
Return loss, 70–110 GHz	≥ 10 dB
Insertion loss	≤ 0.1√f dB[1]
Insulation resistance	≥ 5,000 MΩ
Working voltage	500 Vrms

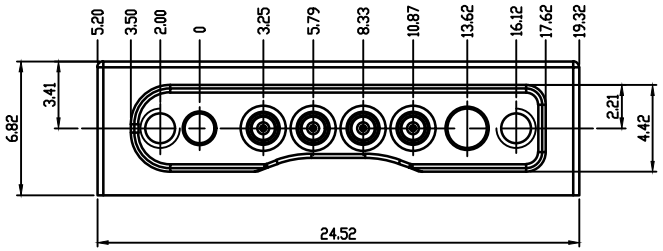
MECHANICAL / ENVIRONMENTAL	
Channel arrangement	1×4 / 4 channels
Contact pitch	2.54 mm
Board mounting	Edge mounting
Mating durability	≥ 1,000 cycles
Mounting fastener	M1 × 3 / M1.6 × 2
Mounting torque (kgf·cm)	0.6 (M1) / 1.4 (M1.6)
Working temperature	−40 °C to +120 °C

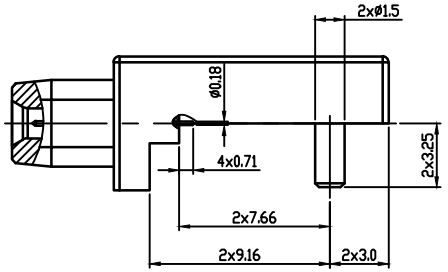
[1] f = frequency in GHz. RoHS compliant. Specifications from the supplied TWS90K-04 V1.0 drawing.

CONSTRUCTION Gold-plated brass body · Gold-plated BeCu center contacts · PEEK insulator · Passivated stainless-steel parts

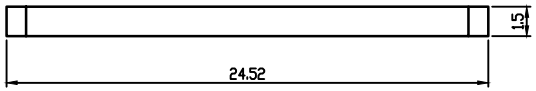
Rev.	Description	Drawn by	Approved by	Date
V1.0	First issues	T.FL	C.G	2024.10.16

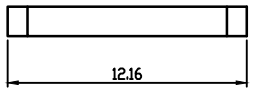


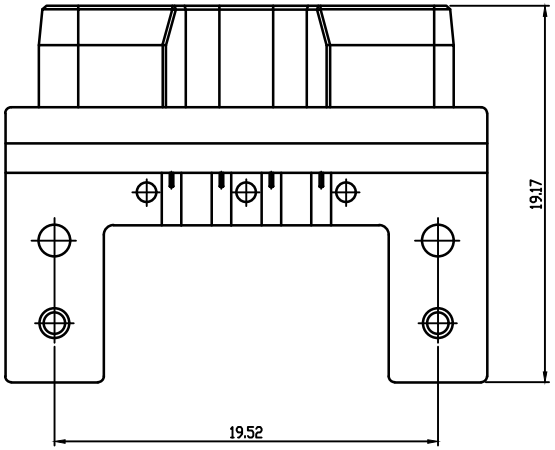




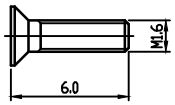
Stiffener block



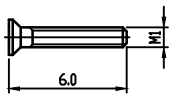




Qty: 2 PCS



Qty: 3 PCS



1. Electricals data
   - 1.1 Impedance: 50 Ω
   - 1.2 Frequency range: DC to 110 GHz
   - 1.3 Return loss: ⩾ 15 dB, DC to 70 GHz
     ⩾ 10 dB, 70 GHz to 110 GHz
   - 1.4 Insertion loss: ⩽ 0.1 dB x sqrt(F(F in GHz))
   - 1.5 Insulator resistance: ⩾ 5000 MΩ
   - 1.6 Working voltage: 500 Vrms

2. Mechanical data
   - 2.1 Mechanical life: ⩾ 1000 cycles
   - 2.2 Recommended torque 0.6kgf.cm (M1)
     1.4kgf.cm (M1.6)
   - 2.3 Board mounting type: Edge Mounting

3. Environment data
   - 3.1 working temperature: -40 ℃ to +120 ℃
   - 3.2 RoHS: Compliant

No.	Description	Material	Finish
4	Other parts	Stainless steel	Passivated
3	Insulator	PEEK	NA
2	Center contact	Beryllium Copper	Gold
1	Body	Brass	Gold

Dimension: MM

General tolerance
Unless Otherwise Specified
0 Places: ±0.2
1 Places: ±0.2
2 Places: ±0.2
3 Places:
4 Places:
Angles:

Weight: --

Projection:

Series: /

Cable: /

Product Spec.:

Assembly Instr.:

Drawn:

Checked:

Approved:

CUSTOMER DRAWING

This drawing is a controlled document

Vinstronics

Title: Right Angle Plug 1x4, For Board Launch

Part Number:

Drawing Number: TWS90K-04

Rev. V1.0

Scale: 10:1

Remark: