110 GHz 1×4 Vertical PCB Multi-Port Connector

Four 50 Ω channels | 2.54 mm contact pitch

P/N: VST-TWS90J-04

PRODUCT OVERVIEW

A compact four-channel RF connector providing four independent 50 Ω signal paths in a vertical PCB-mount form factor. Its 2.54 mm contact pitch and screw-secured construction support high-density board-level connections for RF and mmWave test applications.



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

KEY FEATURES

- Four 50 Ω coaxial paths in one compact interface
- Up to 110 GHz for RF / mmWave test access
- Gold-plated BeCu contacts with PEEK dielectric
- Vertical mounting for dense PCB layouts
- Screw-secured board-level installation
- ≥1,000 mating cycles for repeated use

TECHNICAL SPECIFICATIONS

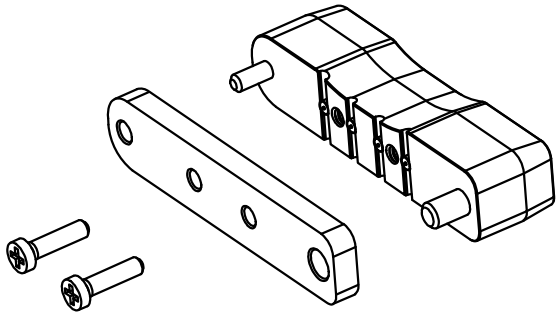
ELECTRICAL	
Frequency range	DC–110 GHz
Nominal impedance	50 Ω / channel
Return loss, DC–70 GHz	≥ 15 dB
Return loss, 70–110 GHz	≥ 10 dB
Insertion loss	≤ 0.1√f dB[1]
Insulation resistance	≥ 5,000 MΩ
Working voltage	500 Vrms

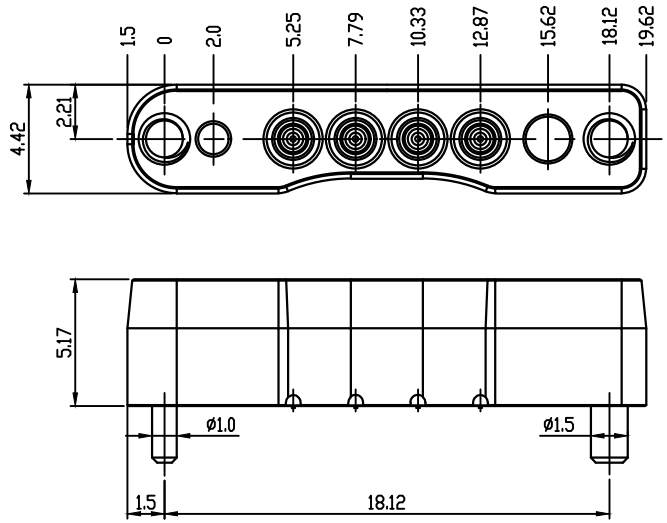
MECHANICAL / ENVIRONMENTAL	
Channel arrangement	1×4 / 4 channels
Contact pitch	2.54 mm
Board mounting	Vertical
Mating durability	≥ 1,000 cycles
Mounting fastener	M1 × 4 (drawing)
Recommended torque	0.6 kgf·cm
Working temperature	−40 °C to +120 °C

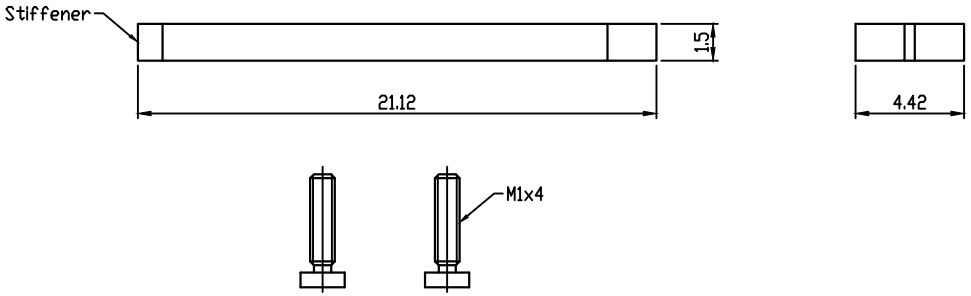
[1] f = frequency in GHz. All listed specifications are from the supplied VST-TWS90J-04 V1.0 drawing.

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







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
   - 2.3 Board mounting type: Vertical 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	Series: /	Cable: /	Vinstronics
General tolerance Unless Otherwise Specified 0 Places: ±0.2 1 Places: ±0.2 2 Places: ±0.2 3 Places: 4 Places: Angles:	Product Spec:	Assembly Instr.:	
	Drawn:		Title: SMPS Vertical, 1x4 channel, For PCB
	Checked:		
	Approved:		Part Number:
Weight: --	CUSTOMER DRAWING		Drawing Number: TWS90J-04 Rev. V1.0
Projection:	This drawing is a controlled document		Scale: 10:1 Remark: Page: 1/2