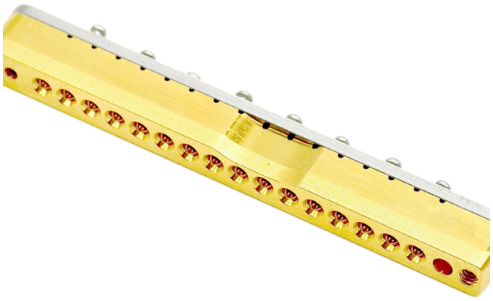
110 GHz 1×16 Vertical PCB Multi-Port Connector

Sixteen 50 Ω channels | 2.54 mm contact pitch

P/N: VST-TWS90J-16

PRODUCT OVERVIEW

A 16-channel vertical PCB connector providing independent 50 Ω signal paths in a compact 1×16 interface. Its 2.54 mm contact pitch and screw-retained stiffener support high-density board-level RF and mmWave test interconnects.



DC–110 GHz	1×16	2.54 mm	Vertical
FREQUENCY	CHANNELS	CONTACT PITCH	PCB MOUNTING

KEY FEATURES

- Sixteen 50 Ω paths in one compact 1×16 interface
- DC–110 GHz operation for RF / mmWave test access
- Gold-plated BeCu contacts with PEEK dielectric
- Vertical mounting for dense PCB layouts
- Screw-retained stiffener for board installation
- ≥1,000 mating cycles for repeated use

TECHNICAL SPECIFICATIONS

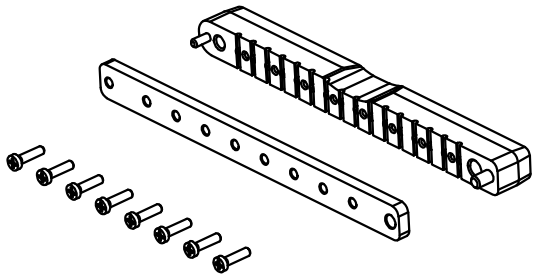
ELECTRICAL	
Frequency range	DC–110 GHz
Nominal impedance	50 Ω / channel
Return loss, DC–70 GHz	≥ 15 dB
Return loss, 70–110 GHz	≥ 10 dB
Insertion loss	≤ 0.1√f dB[1]
Insulation resistance	≥ 5,000 MΩ
Working voltage	500 Vrms

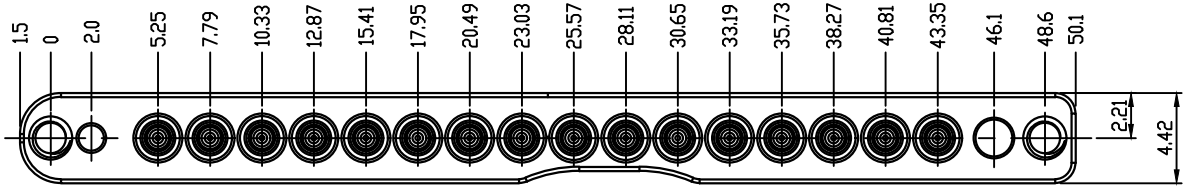
MECHANICAL / ENVIRONMENTAL	
Channel arrangement	1×16 / 16 channels
Contact pitch	2.54 mm
Board mounting	Vertical
Mating durability	≥ 1,000 cycles
Mounting fastener	M1 × 4 (8 pcs)
Mounting torque (kgf·cm)	0.6 kgf·cm
Working temperature	−40 °C to +120 °C

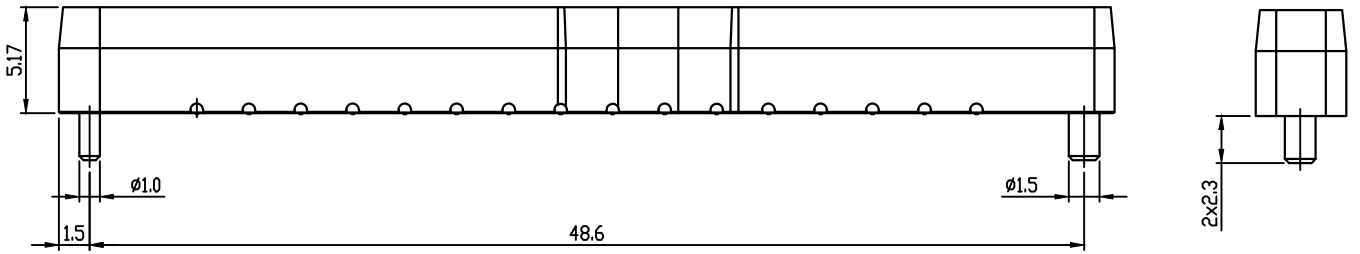
[1] f = frequency in GHz. RoHS compliant. Specifications per TWS90J-16 drawing, rev. V2.0.

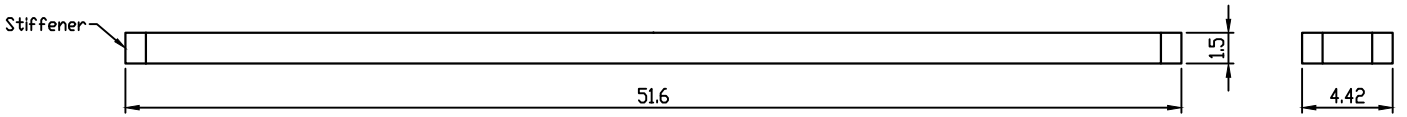
CONSTRUCTION Gold-plated brass body · Gold-plated BeCu center contacts · PEEK insulator · Passivated stainless-steel parts

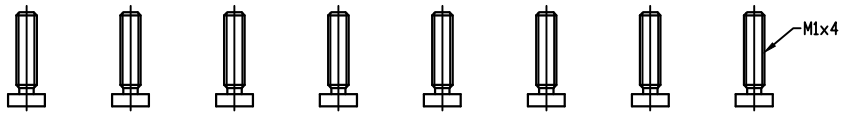
Rev.	Description	Drawn by	Approved by	Date
V1.0	First issues	T.FL	C.G	2024.10.16
V2.0	Second issues	T.FL	C.G	2025.07.21











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

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: SMPS Vertical, 1x16 channel, For PCB

Part Number:

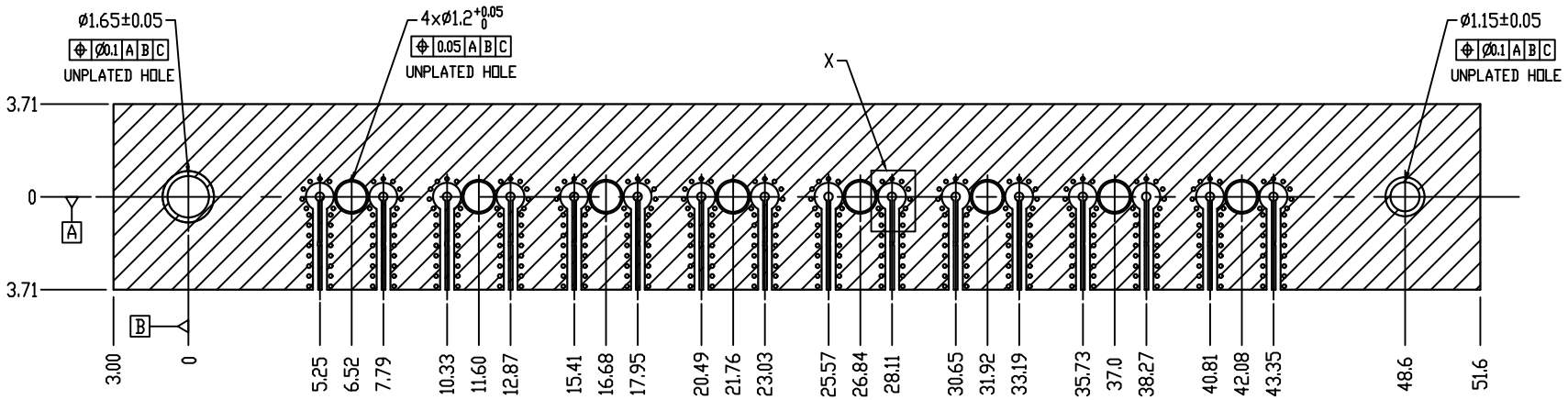
Drawing Number: TWS90J-16

Rev. V2.0

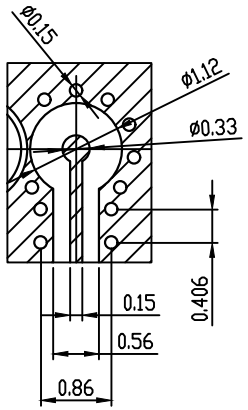
Scale: 10:1

Remark:

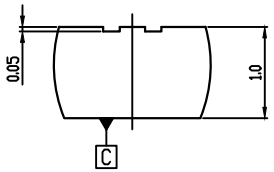
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Detail view X



BOARD THICKNESS



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, 1x16 channel, For PCB
	Checked:		
	Approved:		Part Number:
Weight: --	CUSTOMER DRAWING		Drawing Number: TWS90J-16 Rev. V2.0
Projection:	This drawing is a controlled document		Scale: 10:1 Remark: Page: 2/2