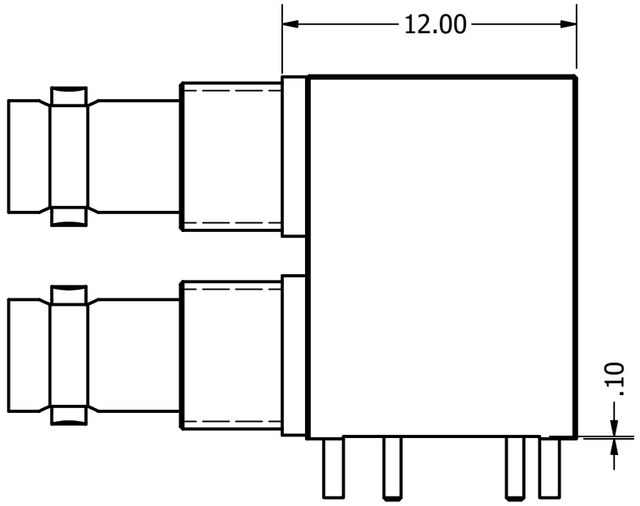
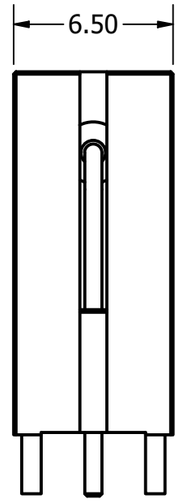
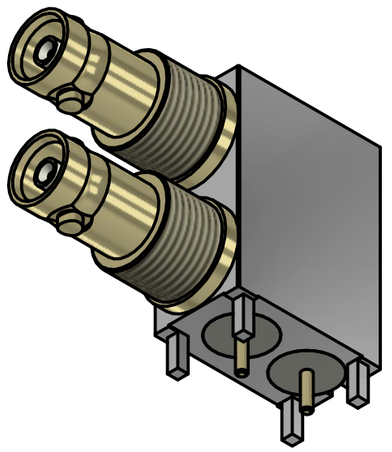
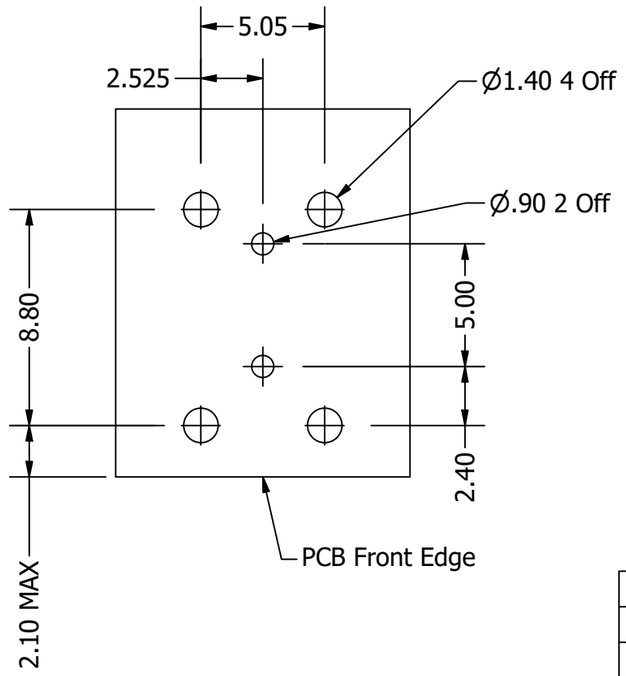




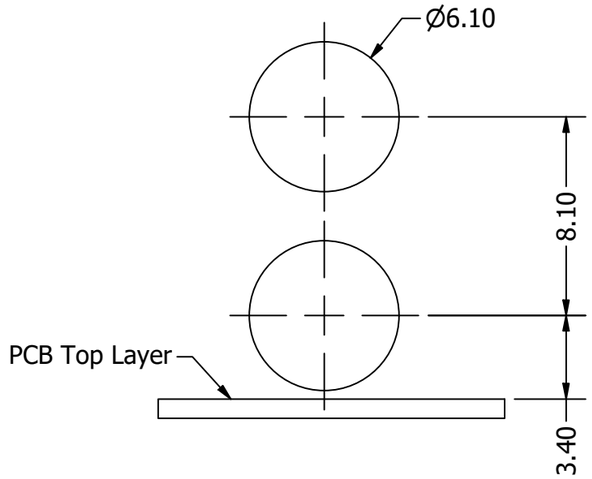


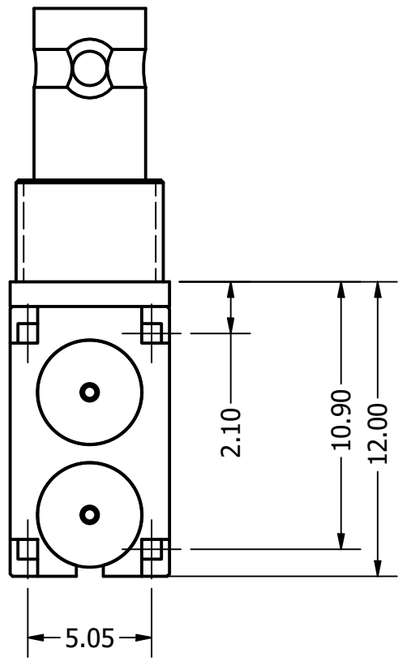


Recommended PCB footprint



Recommended panel cutout





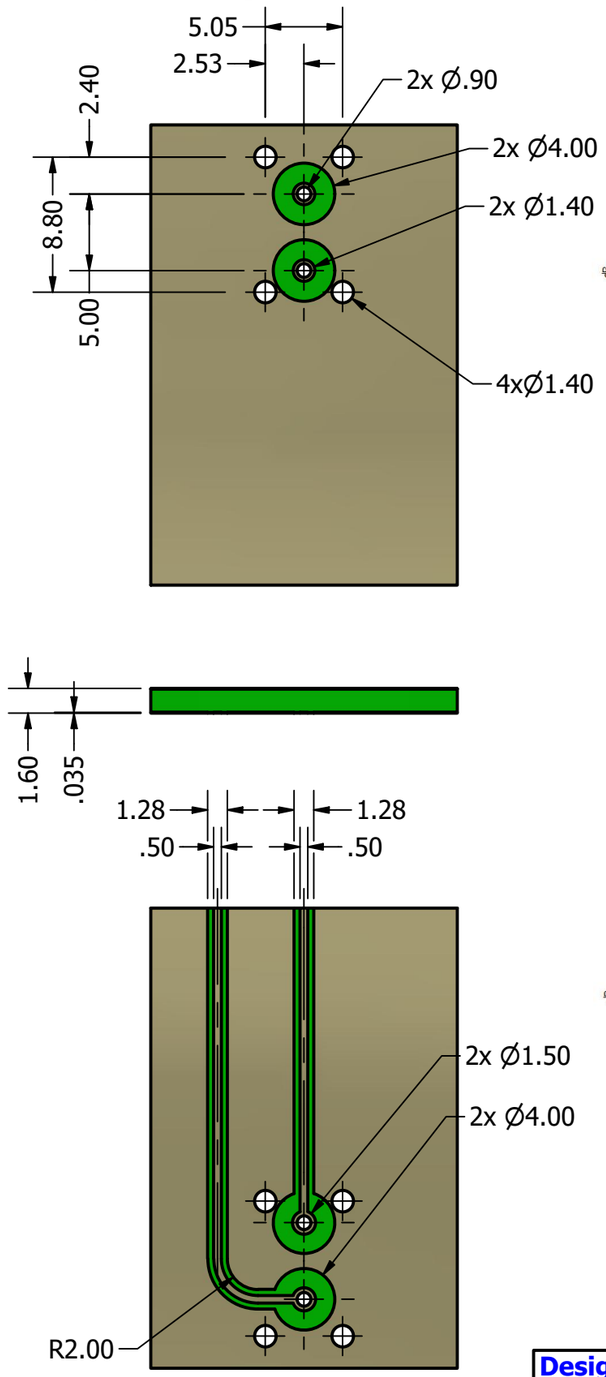
REVISION HISTORY

REV	DESCRIPTION	CHG REF	DATE	DESIGNER
1.0	Origin	-	12 Aug 2024	Peter Millard
1.1	Bottom Insulators Now Common	FB / SUPP	09 Dec 2024	Peter Millard
1.2	Final P/N	-	17 Feb 2025	Peter Millard

Design Right Protected	Material:	Finish:	Gen Tol ±0.10 Angular ±2°	DO NOT SCALE	
Third Angle Projection	Designed by Peter Millard	Checked by	Approved by	©2024	Date 12/08/2024	A3
RoHS Compliant	CAMBRIDGE ELECTRONIC INDUSTRIES	This document and all the data contained herein is and shall remain the property of Cambridge Electronic Industries Ltd and may not be used or copied for any purpose whatsoever without the written permission of Cambridge Electronic Industries Ltd.	Description: 75Ω Micro BNC Socket 12GHz Right Angle Bulkhead, 2.4mm Leg, Dual Port		
			Part No: XPS-12-RB24-NGD Cust	Issue 1.2	Sheet 1 / 2

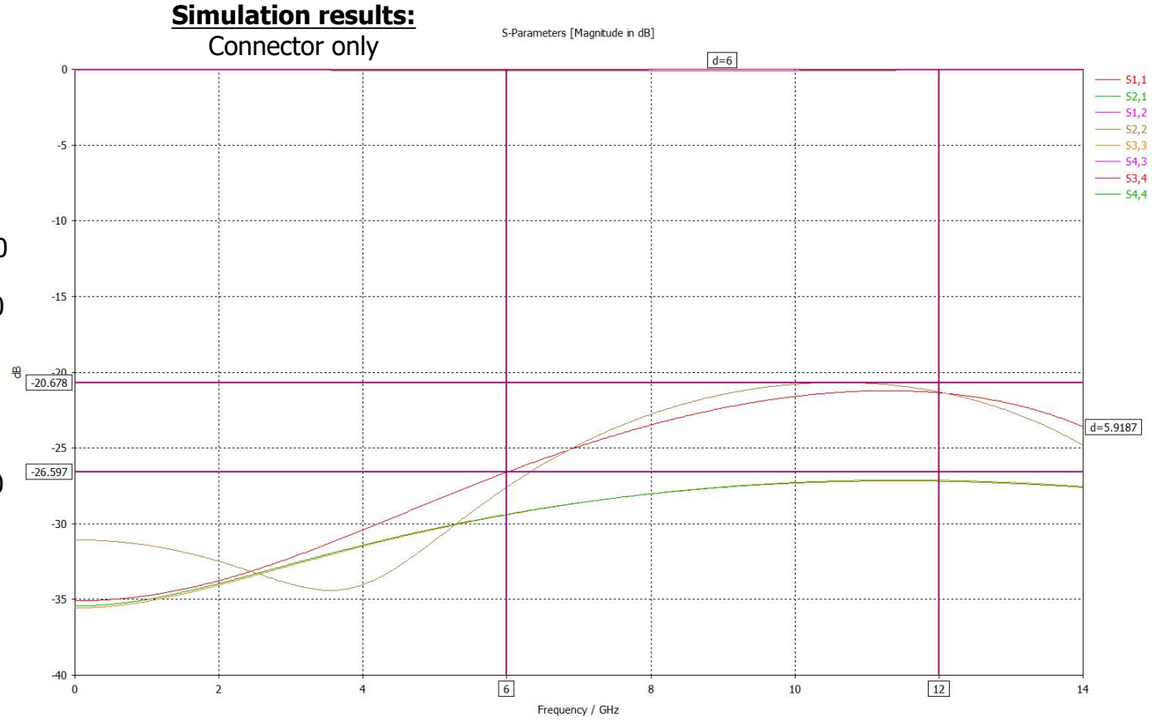
Suggested PCB layout

Intended as a starting point for design iteration



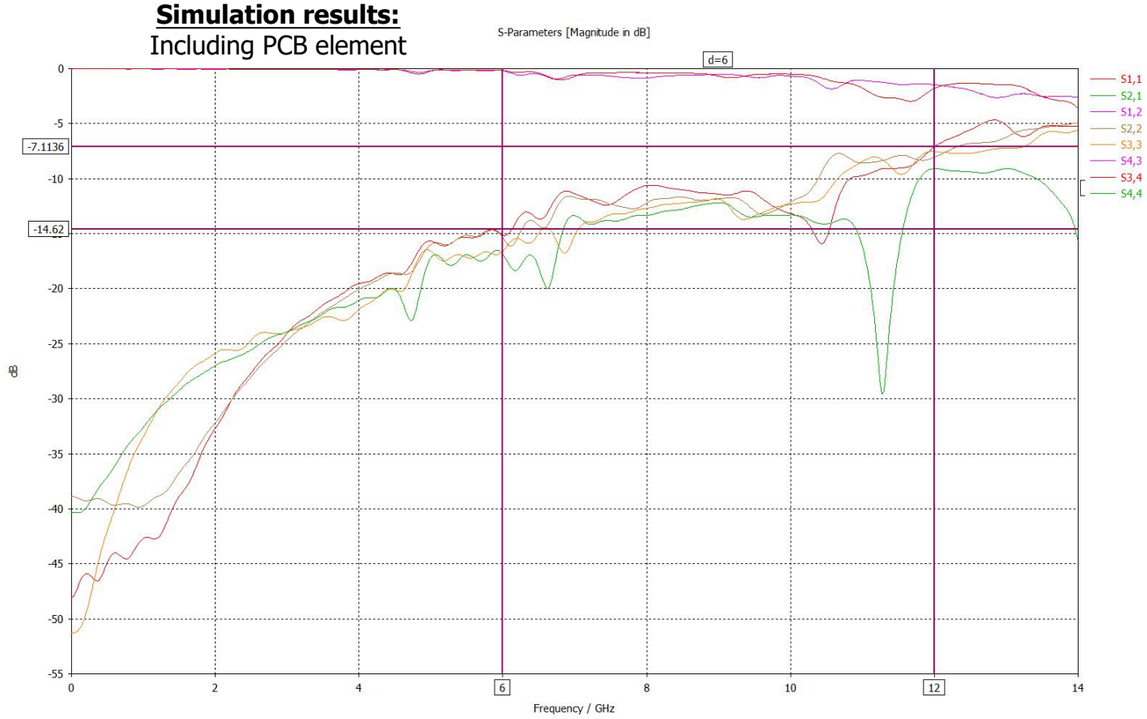
Simulation results:

Connector only



Simulation results:

Including PCB element



Electrical:

Impedance	75Ω
Frequency range	DC ~ 12.0 GHz
Working voltage	170 V_{RMS}
Dielectric withstanding voltage	>500 V_{RMS}
Reflection factor (VSWR)	1.10 MAX DC ~ 6.0 GHz
	1.20 MAX DC ~ 12.0 GHz
Contact resistance	Centre contact ≤4.0 mΩ
	Outer contact ≤2.5 mΩ
Insulation resistance	≥1000 MΩ

Materials:

Centre contact	Beryllium Copper / Au plated
Metal parts	Brass / Au & Ni plated
Insulators	Polytetrafluoroethylene

Environmental:

Temp ranges	-65 ~ +85°C
Mating cycles	500
Vibration	N/A
Salt spray	N/A

Processing:

Hand solder	Recommended / 260°C MAX 10 ~ 12 seconds dwell time
Wave solder	Recommended / 260°C MAX 10 ~ 12 seconds dwell time
Reflow solder	Not recommended

Design Right Protected	Material:	Finish:		Gen Tol ±0.10 Angular ±2°	DO NOT SCALE	
					Unit of Measure: millimeters (mm)	
Third Angle Projection	Designed by Peter Millard	Checked by	Approved by	©2024	Date 12/08/2024	A3
RoHS Compliant	CAMBRIDGE ELECTRONIC INDUSTRIES	This document and all the data contained herein is and shall remain the property of Cambridge Electronic Industries Ltd and may not be used or copied for any purpose whatsoever without the written permission of Cambridge Electronic Industries Ltd.	Description: 75Ω Micro BNC Socket 12GHz Right Angle Bulkhead, 2.4mm Leg, Dual Port			
			Part No: XPS-12-RB24-NGD Cust	Issue 1.2	Sheet 2 / 2	