

Model THC5060U

Features

Excellent phase& amplitude balance
Low Insertion Loss& VSWR
High Isolation

Technical Data Sheet			
Frequency Range	5~6GHz	Finish	Painted Blue_ RAL #5007
Nominal Split	6.02dB	Connector Body	Passivated Stainless Steel
Insertion Loss	≤1.0dB	Housing	Aluminum, 6061 T6
Isolation	≥20dB		Clear Chem Conversion Film
Amplitude Balance	≤±0.5dB	Connector Pin	Beryllium Copper, Gold Plate
Phase Balance	≤±5°	Solder	Lead Free, RoHS Compliant
VSWR	≤1.40:1	Operating Temperature	-55~+85°C
¹ Power Handling	Average ≤50Watt Peak ≤1KW	Operating Humidity	Up to 95%,Non- Condensing
Impedance	50Ω	Weight	140g
Port Connectors	SMA-Female		

¹Power Handling guaranteed when load's VSWR within 1.50:1.

Phase Relationship

A to ELΔ	A to AZΣ	A to ΔQ	A to AZΔ
0°	90°	180°	270°
C to ELΔ	C to AZΣ	C to ΔQ	C to AZΔ
0°	-90°	-180°	-270°

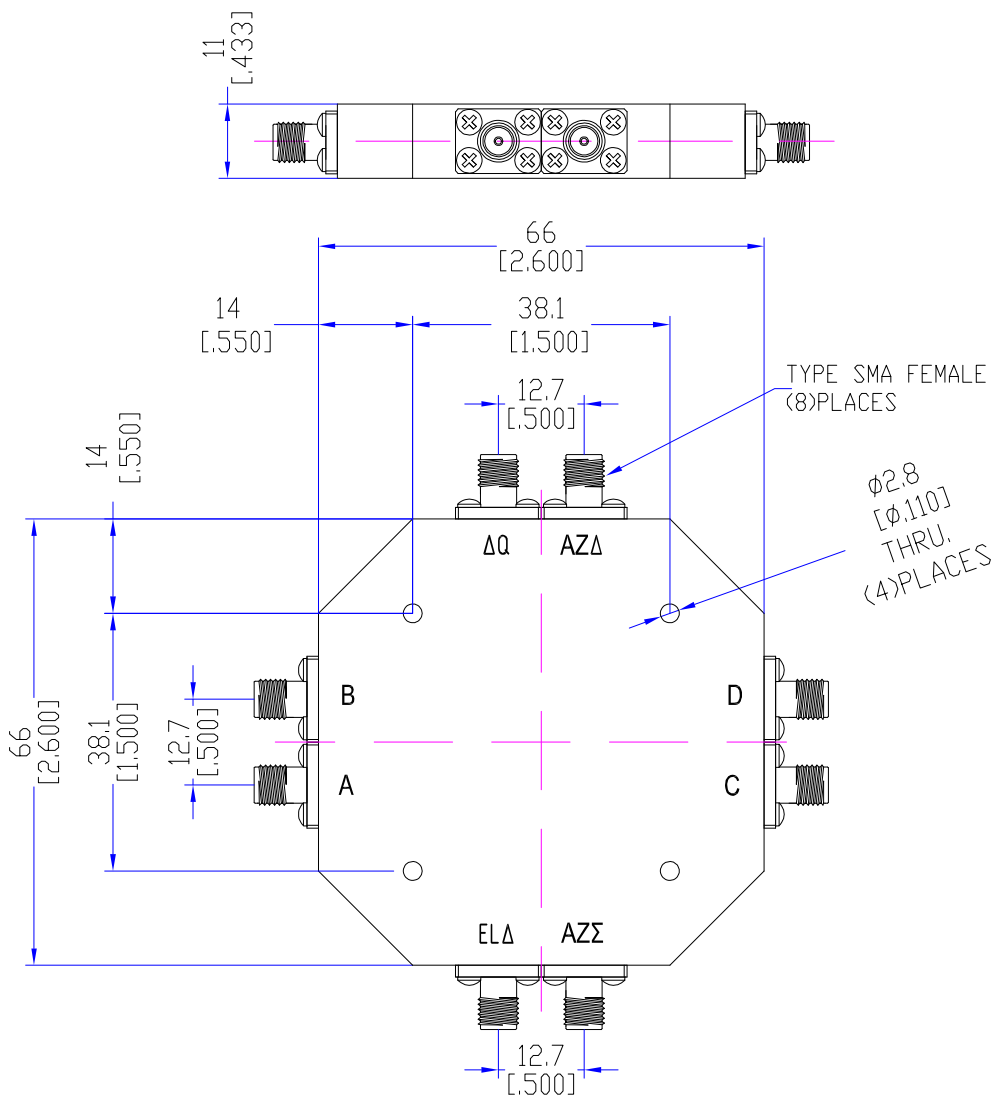
Environmental Parameters

Operating Temperature -55~+85°C

Operating Humidity Up to 90%,Non- Condensing



Outline Drawing

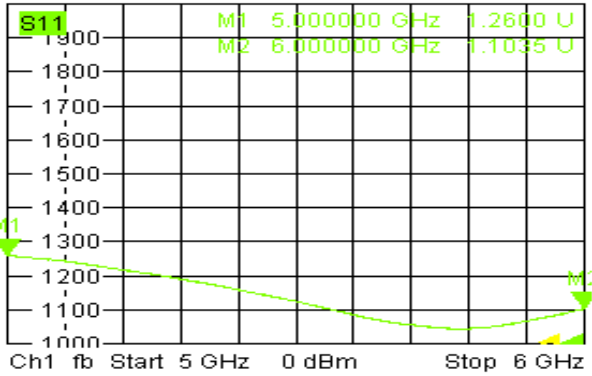


THC5060U 5-6GHz Monopulse Comparator test plots

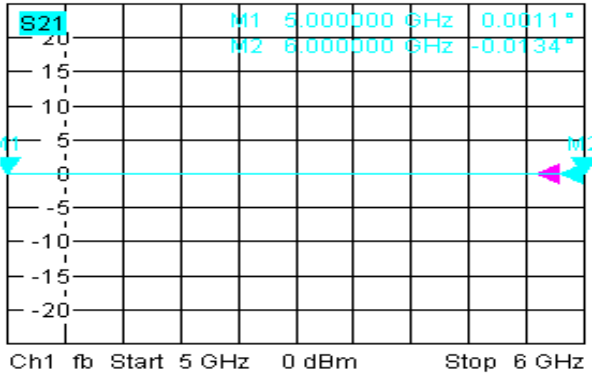
J1 to J5_VSWR, Insertion Loss, Phase Balance & Amplitude Balance



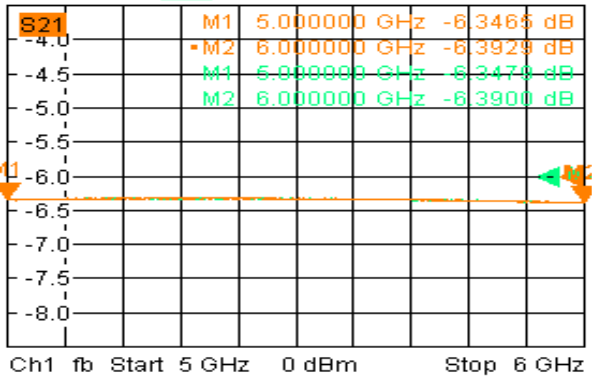
Trc1 Mem5[Trc1] S11 SWR 100 mU/ Ref1 U Cal Invis



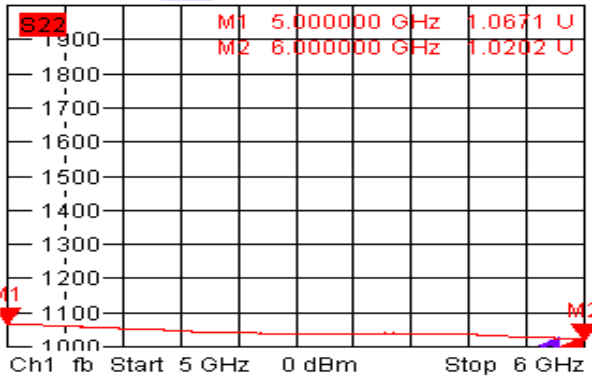
Trc2 Mem6[Trc2] S21 Phase unwrap 5° / Ref0° C Ir



Trc3 Mem7[Trc3] S21 dB Mag 0.5 dB / Ref-6 dB C



Trc4 Mem8[Trc4] S22 SWR 100 mU/ Ref1 U Cal Invis



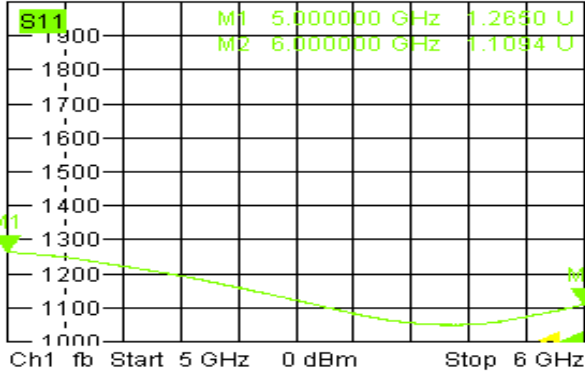
4/22/2021, 5:24 PM



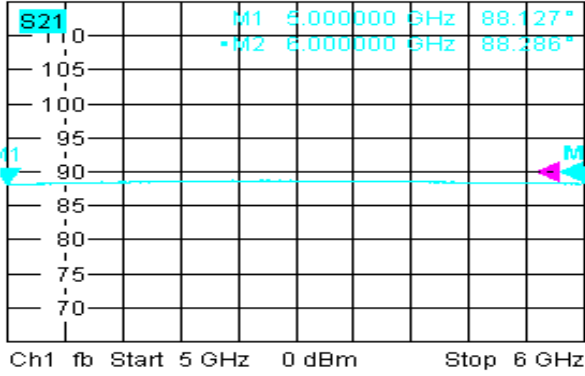
J1 to J6_VSWR, Insertion Loss, Phase Balance & Amplitude Balance



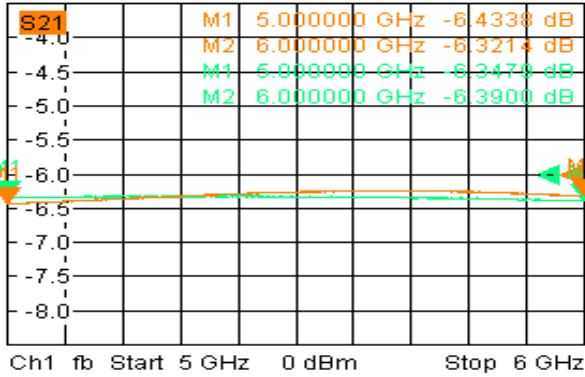
Trc1 **S11** SWR 100 mU/ Ref 1 U Cal
 Mem5[Trc1] **S11** SWR 100 mU/ Ref 1 U Invis



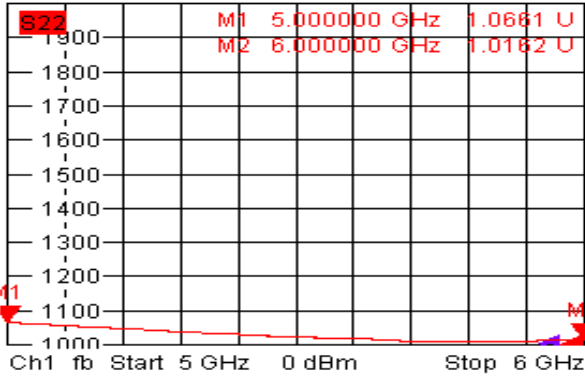
Trc2 **S21** Phase unwrap 5° / Ref 90°
 Mem6[Trc2] **S21** Phase unwrap 5° / Ref 90°



Trc3 **S21** dB Mag 0.5 dB / Ref -6 dB C
 Mem7[Trc3] **S21** dB Mag 0.5 dB / Ref -6 dB



Trc4 **S22** SWR 100 mU/ Ref 1 U Cal
 Mem8[Trc4] **S22** SWR 100 mU/ Ref 1 U Invis



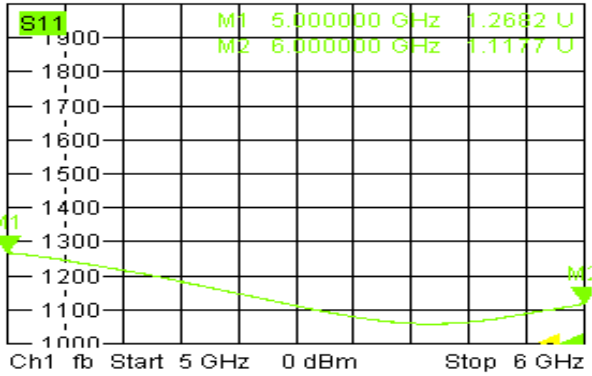
4/22/2021, 5:25 PM



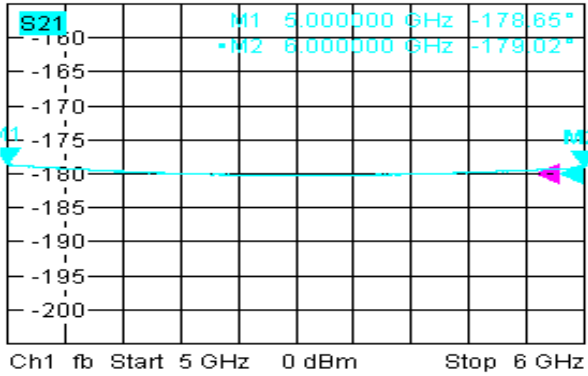
J1 to J7_VSWR, Insertion Loss, Phase Balance & Amplitude Balance



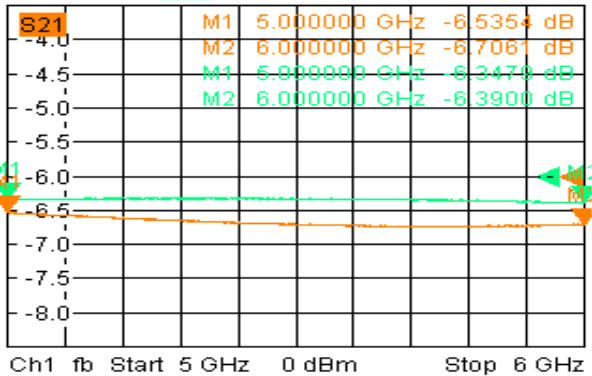
Trc1 **S11** SWR 100 mU/ Ref1 U Cal
Mem5[Trc1] **S11** SWR 100 mU/ Ref1 U Invis



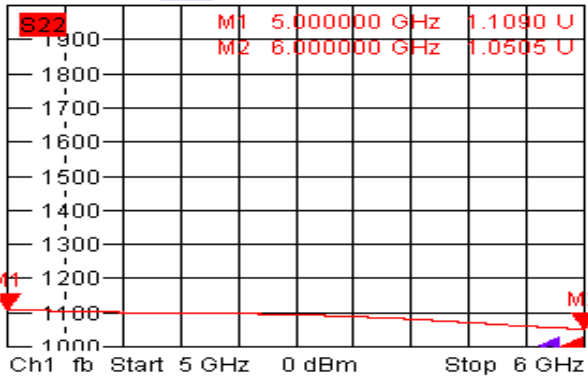
Trc2 **S21** Phase unwrap 5° / Ref-180°
Mem6[Trc2] **S21** Phase unwrap 5° / Ref-180°



Trc3 **S21** dB Mag 0.5 dB / Ref-6 dB C
Mem7[Trc3] **S21** dB Mag 0.5 dB / Ref-6 dB



Trc4 **S22** SWR 100 mU/ Ref1 U Cal
Mem8[Trc4] **S22** SWR 100 mU/ Ref1 U Invis



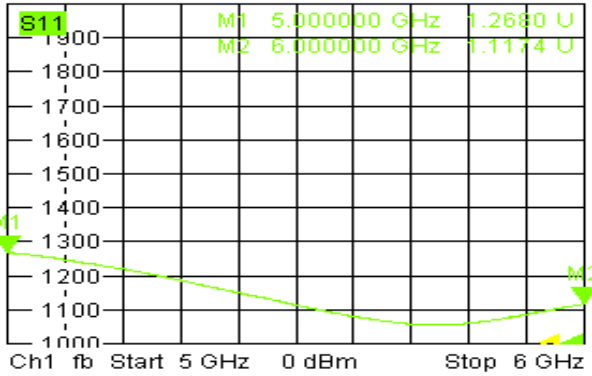
4/22/2021, 5:25 PM



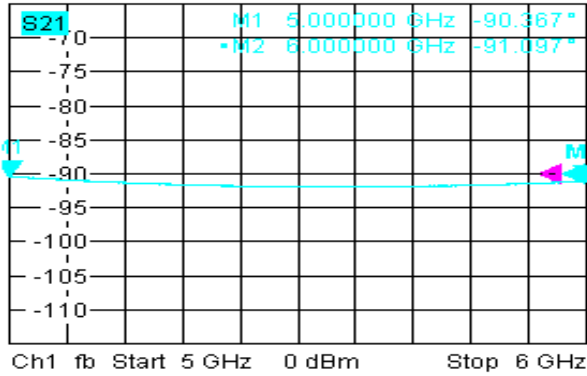
J1 to J8_VSWR, Insertion Loss, Phase Balance & Amplitude Balance



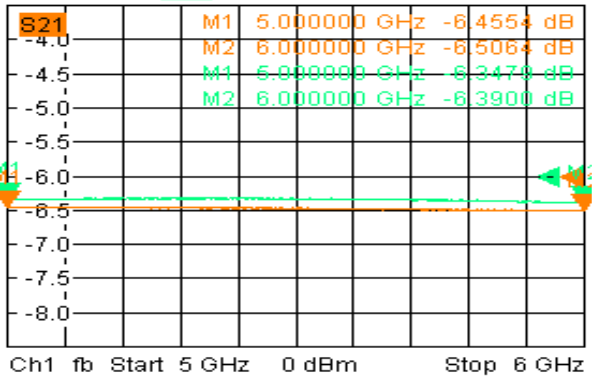
Trc1 **S11** SWR 100 mU/ Ref1 U Cal
Mem5[Trc1] **S11** SWR 100 mU/ Ref1 U Invis



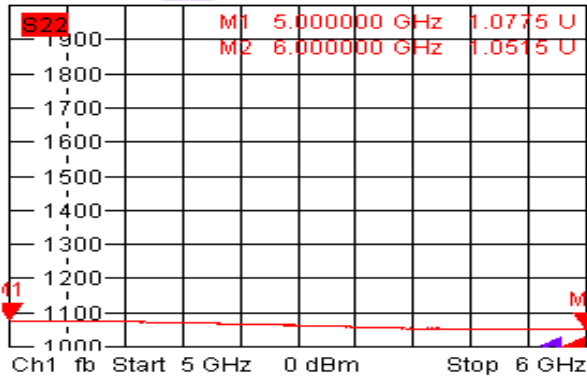
Trc2 **S21** Phase unwrap 5° / Ref-90°
Mem6[Trc2] **S21** Phase unwrap 5° / Ref-90°



Trc3 **S21** dB Mag 0.5 dB / Ref-6 dB C
Mem7[Trc3] **S21** dB Mag 0.5 dB / Ref-6 dB



Trc4 **S22** SWR 100 mU/ Ref1 U Cal
Mem8[Trc4] **S22** SWR 100 mU/ Ref1 U Invis



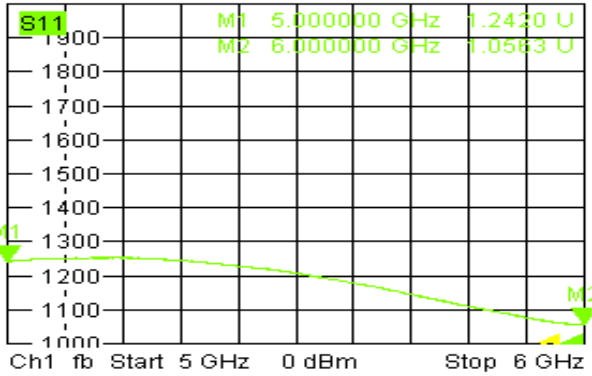
4/22/2021, 5:26 PM



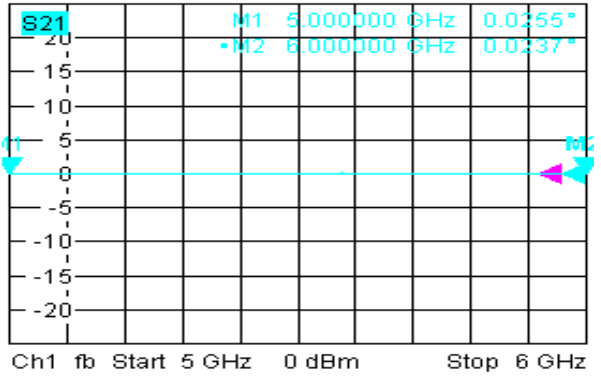
J4 to J5_ VSWR, Insertion Loss, Phase Balance & Amplitude Balance



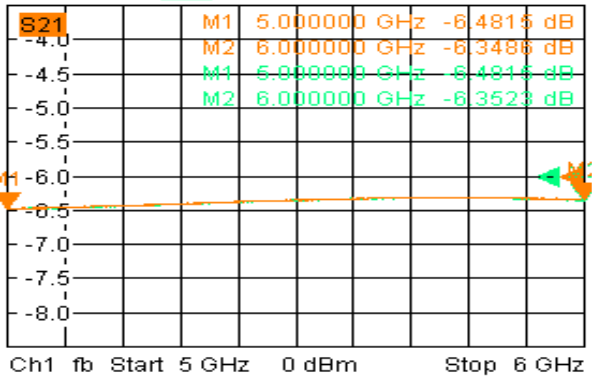
Trc1 Mem5[Trc1] **S11** SWR 100 mU/ Ref1 U Cal
S11 SWR 100 mU/ Ref1 U Invis



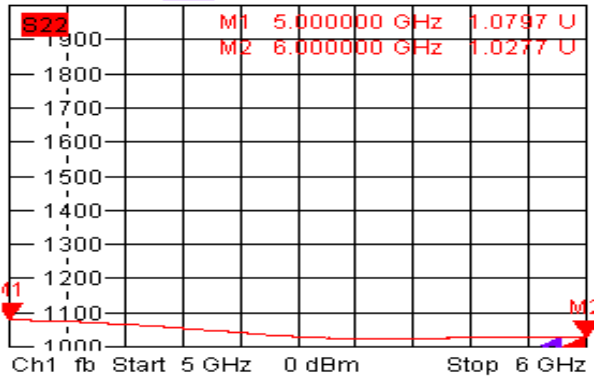
Trc2 Mem6[Trc2] **S21** Phase unwrap 5° / Ref0° C
S21 Phase unwrap 5° / Ref0° Ir



Trc3 Mem7[Trc3] **S21** dB Mag 0.5 dB / Ref-6 dB C
S21 dB Mag 0.5 dB / Ref-6 dB



Trc4 Mem8[Trc4] **S22** SWR 100 mU/ Ref1 U Cal
S22 SWR 100 mU/ Ref1 U Invis



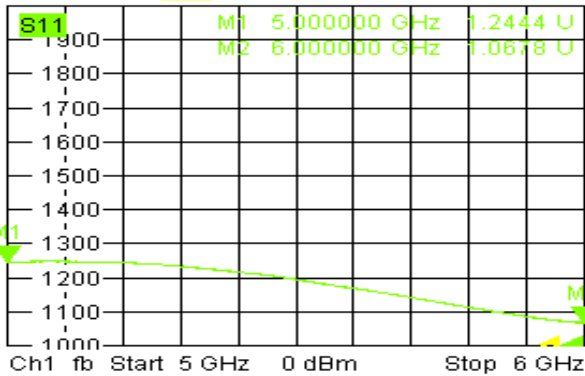
4/22/2021, 5:27 PM



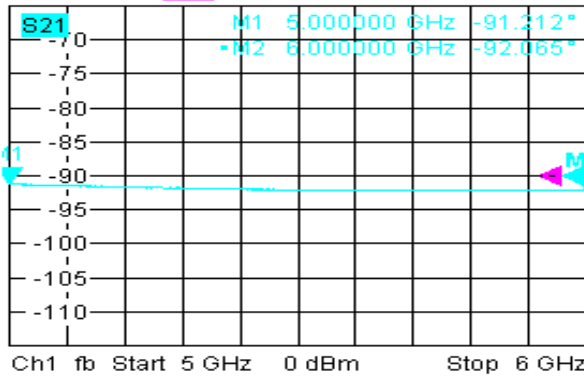
J4 to J6__VSWR,Insertion Loss, Phase Balance & Amplitude Balance



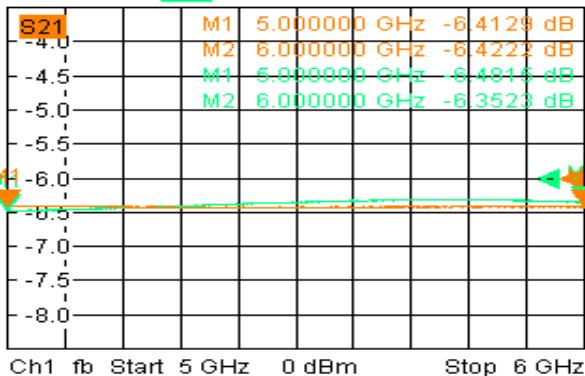
Trc1 **S11** SWR 100 mU/ Ref 1 U Cal
 Mem5[Trc1] **S11** SWR 100 mU/ Ref 1 U Invis



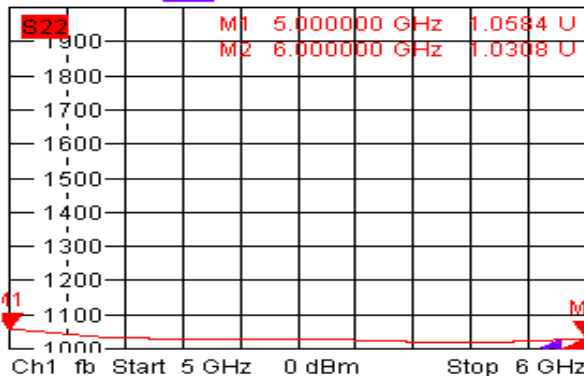
Trc2 **S21** Phase unwrap 5° / Ref -90°
 Mem6[Trc2] **S21** Phase unwrap 5° / Ref -90°



Trc3 **S21** dB Mag 0.5 dB / Ref -6 dB C
 Mem7[Trc3] **S21** dB Mag 0.5 dB / Ref -6 dB



Trc4 **S22** SWR 100 mU/ Ref 1 U Cal
 Mem8[Trc4] **S22** SWR 100 mU/ Ref 1 U Invis



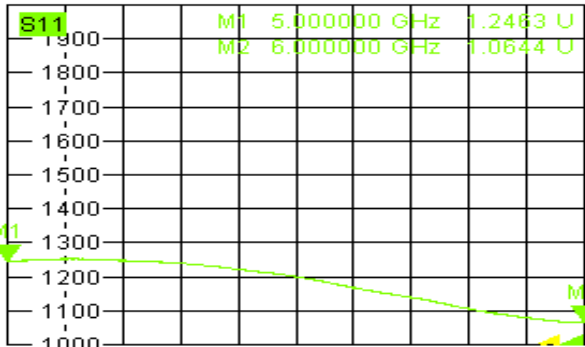
4/22/2021, 5:27 PM



J4 to J7_VSWR, Insertion Loss, Phase Balance & Amplitude Balance

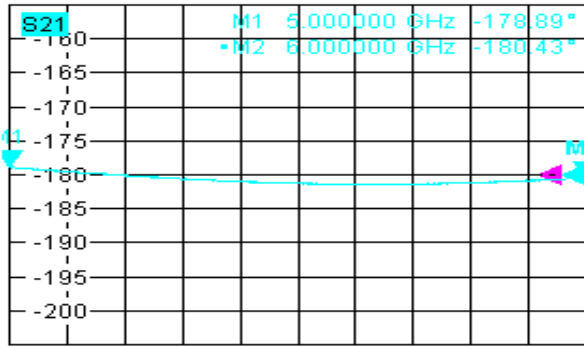


Trc1 **S11** SWR 100 mU/ Ref 1 U Cal
Mem5[Trc1] **S11** SWR 100 mU/ Ref 1 U Invis



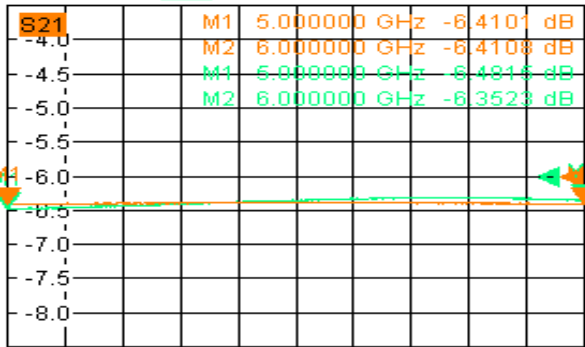
Ch1 fb Start 5 GHz 0 dBm Stop 6 GHz

Trc2 **S21** Phase unwrap 5° / Ref -180°
Mem6[Trc2] **S21** Phase unwrap 5° / Ref -180°



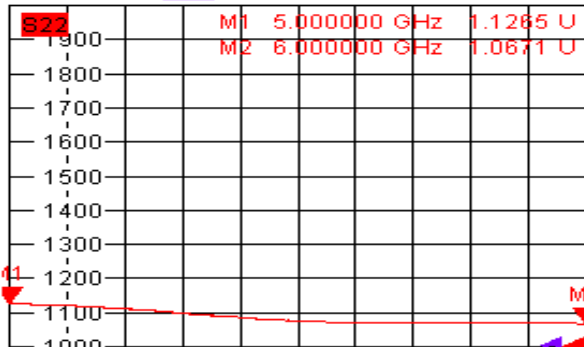
Ch1 fb Start 5 GHz 0 dBm Stop 6 GHz

Trc3 **S21** dB Mag 0.5 dB / Ref -6 dB C
Mem7[Trc3] **S21** dB Mag 0.5 dB / Ref -6 dB



Ch1 fb Start 5 GHz 0 dBm Stop 6 GHz

Trc4 **S22** SWR 100 mU/ Ref 1 U Cal
Mem8[Trc4] **S22** SWR 100 mU/ Ref 1 U Invis



Ch1 fb Start 5 GHz 0 dBm Stop 6 GHz

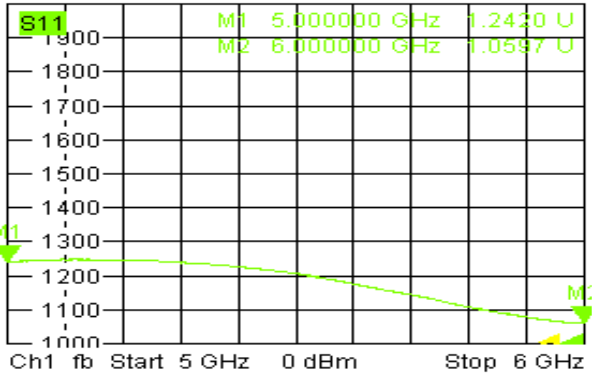
4/22/2021, 5:29 PM



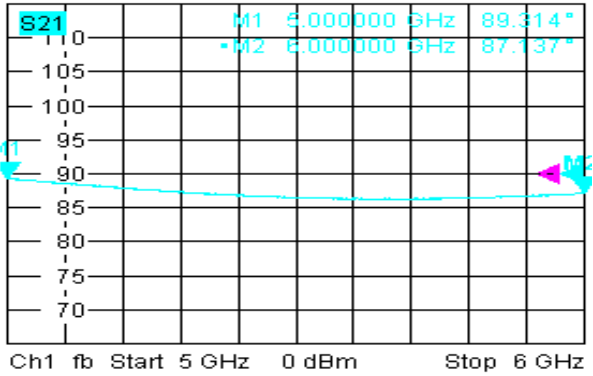
J4 to J8 VSWR, Insertion Loss, Phase Balance & Amplitude Balance



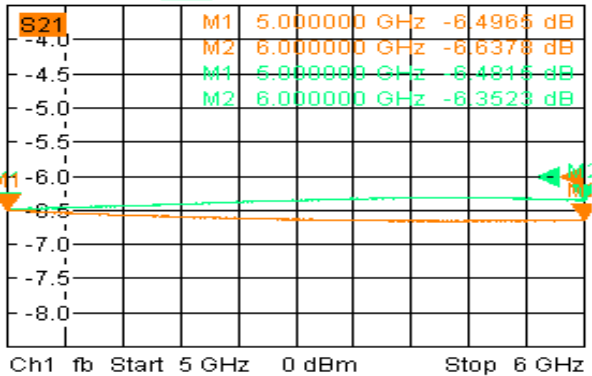
Trc1 Mem5[Trc1] **S11** SWR 100 mU/ Ref 1 U Cal Invis



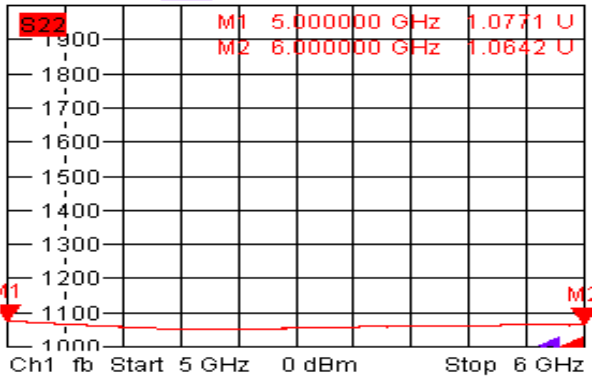
Trc2 Mem6[Trc2] **S21** Phase unwrap 5° / Ref 90°



Trc3 Mem7[Trc3] **S21** dB Mag 0.5 dB / Ref -6 dB



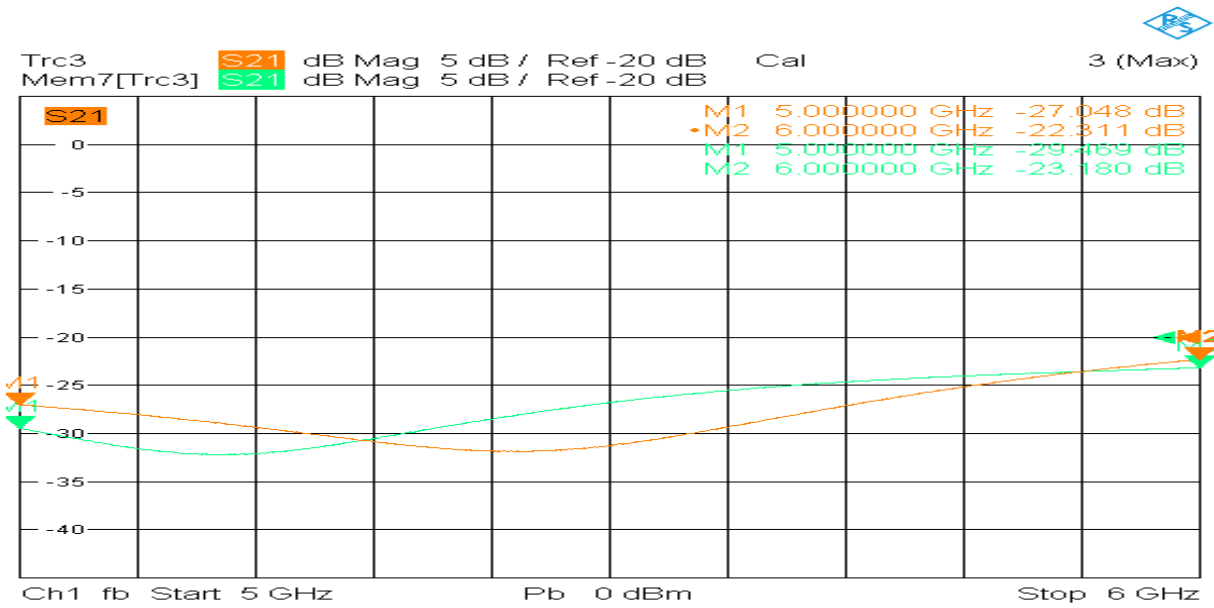
Trc4 Mem8[Trc4] **S22** SWR 100 mU/ Ref 1 U Cal



4/22/2021, 5:30 PM

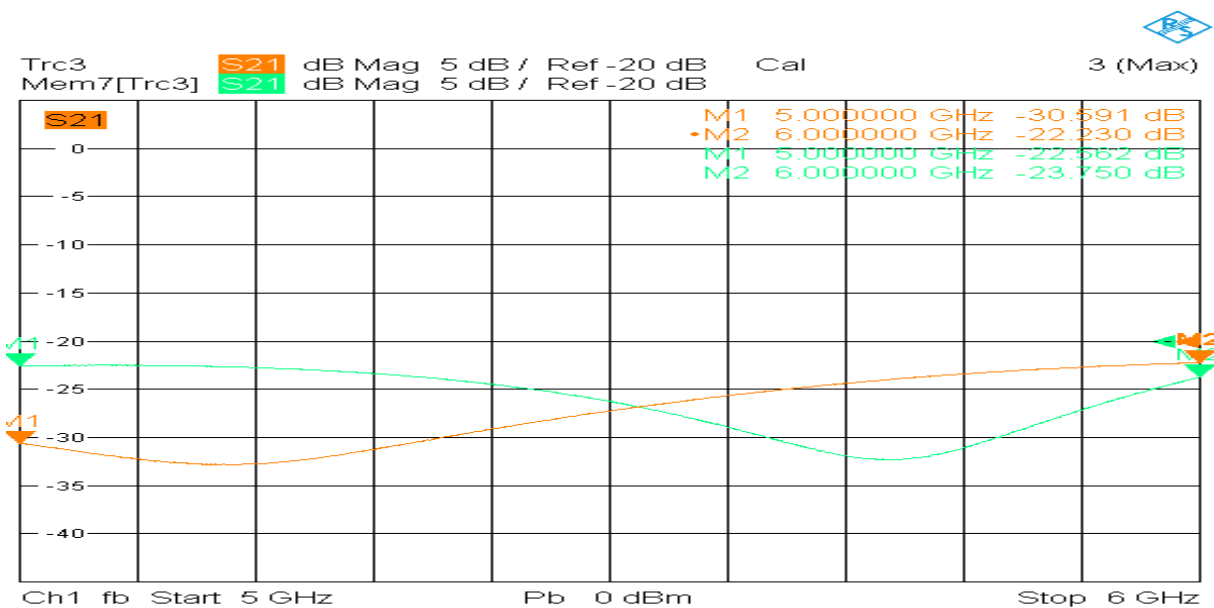


J1 to J2& J3 to J4__Isolation



4/22/2021, 5:44 PM

J5 to J6& J7 to J8__Isolation



4/22/2021, 5:45 PM

