

## Model TPD0303U

### Features

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

Technical Data Sheet			
Frequency Range	328~335.5MHz	Finish	Painted Blue_ RAL #5007
Insertion Loss	≤1.20dB	Connector Body	Passivated Stainless Steel
VSWR	≤1.20:1	Housing	Aluminum, 6061 T6 Clear Chem Conversion Film
Isolation	≥22dB	Connector Pin	Beryllium Copper, Gold Plate
Amplitude Balance	≤±0.2dB@331.75MHz	Solder	Lead Free, RoHS Compliant
Phase Balance	≤±2°@331.75MHz	Operating Temperature	-50~+85°C
<sup>1</sup> Power Handling	Forward ≤15Watt; Reversed ≤1Watt	Operating Humidity	Up to 95%,Non- Condensing
Impedance	50Ω	Hermetically sealed	Yes
Port Connectors	TNC-Female	Weight	1250g

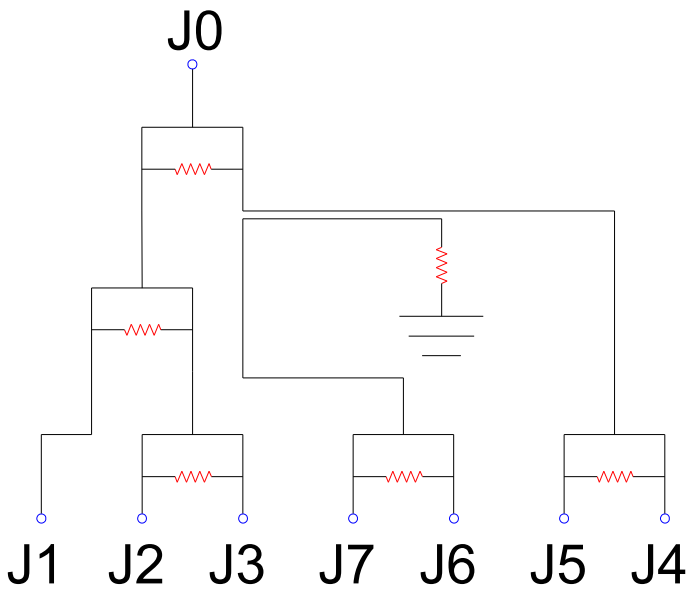
<sup>1</sup>Power Handling guaranteed when load's VSWR within 1.50:1.

### Specification Table

Port	Power Ratio	Magnitude(dB)	Phase(degree)
J1	1	-5.05	0
J4	0.75	-6.30	-18
J3	0.3	-10.28	-35
J6	0.05	-18.06	-52
J5	0.75	-6.30	+18
J2	0.3	-10.28	+35
J7	0.05	-18.06	+52

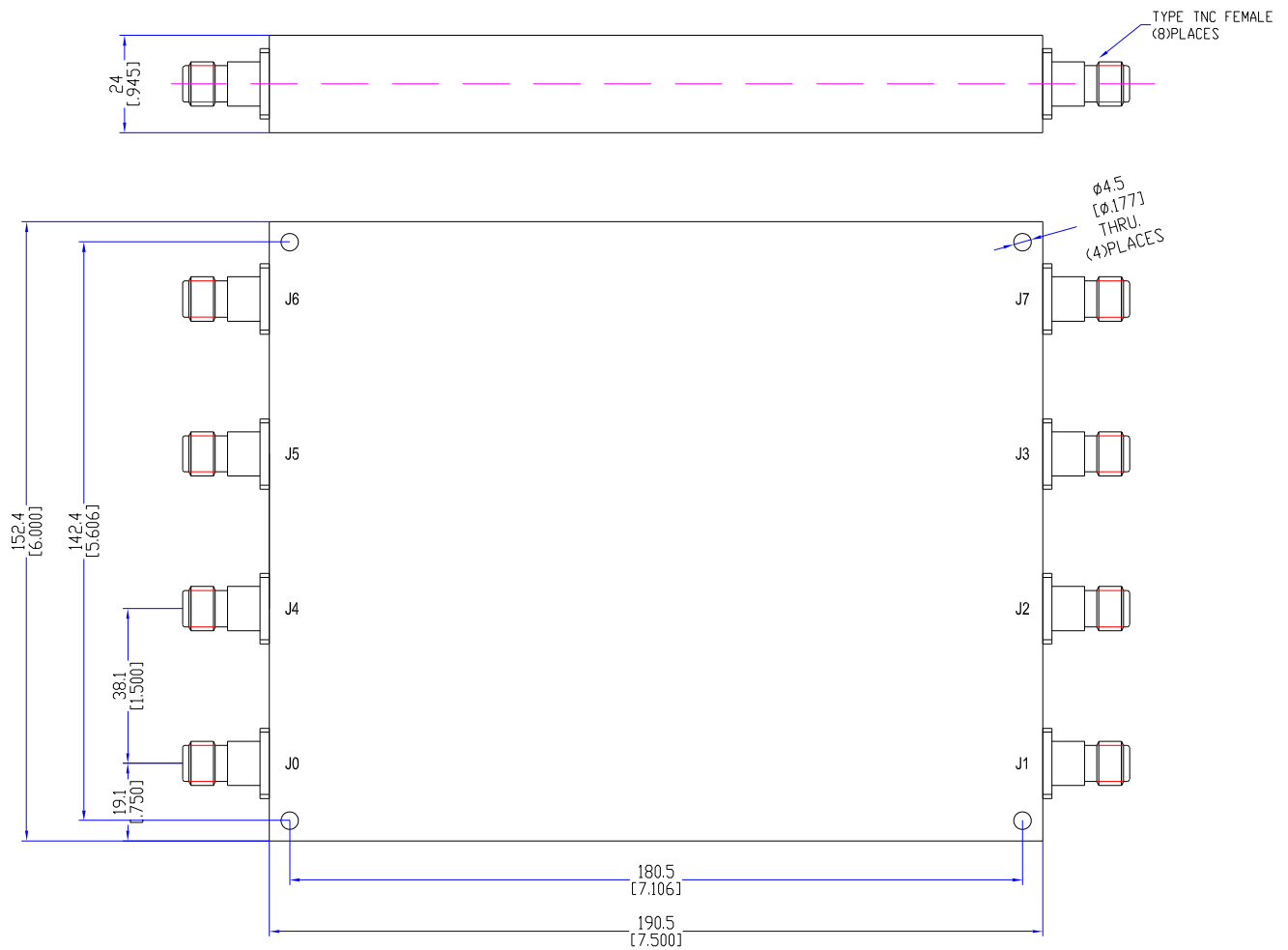


**Schematic**

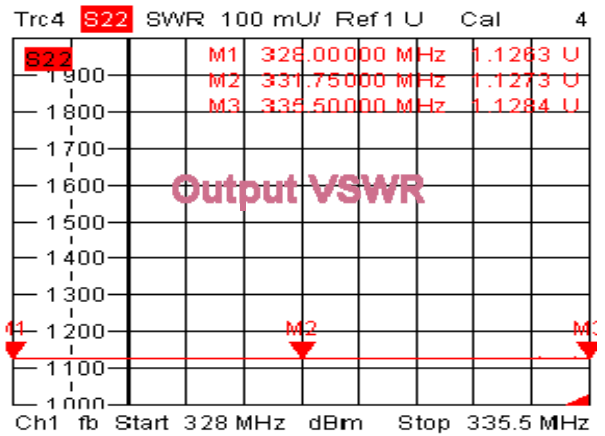
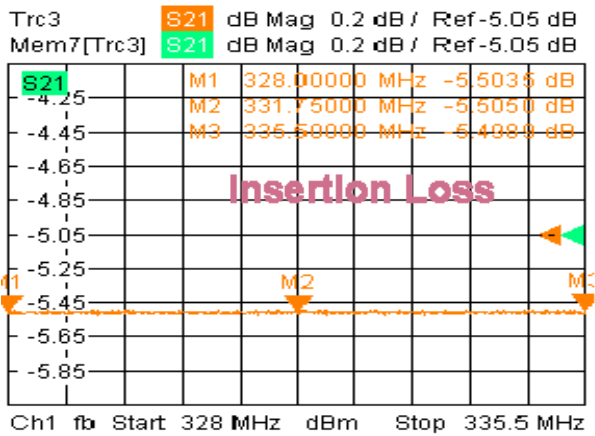
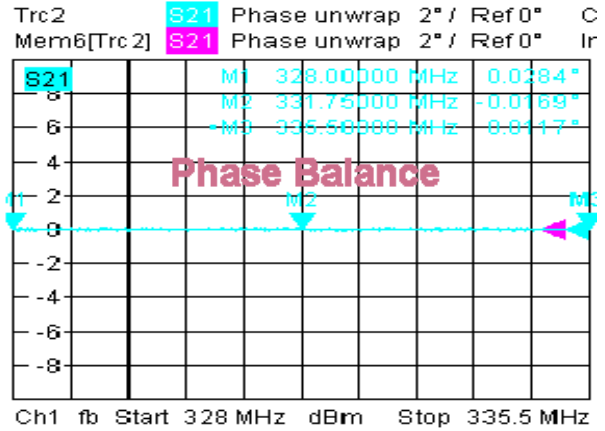
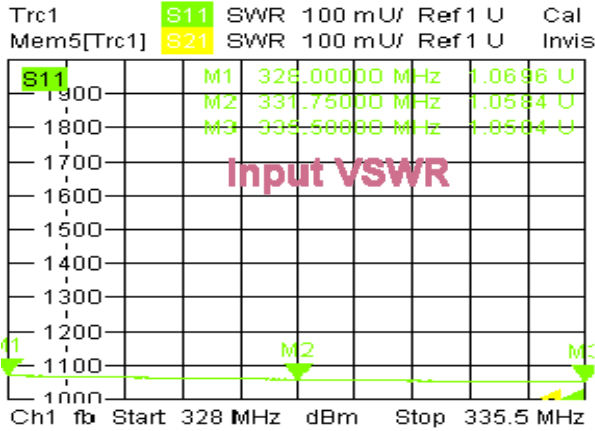


**Outline Drawing**

Tolerance:  $\pm 0.2\text{mm}$



## J0 to J1\_ Input& Output VSWR, Insertion Loss, Phase Balance



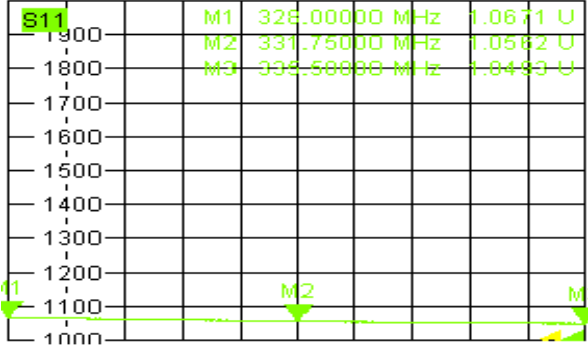
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## J0 to J2\_ Input& Output VSWR, Insertion Loss, Phase Balance

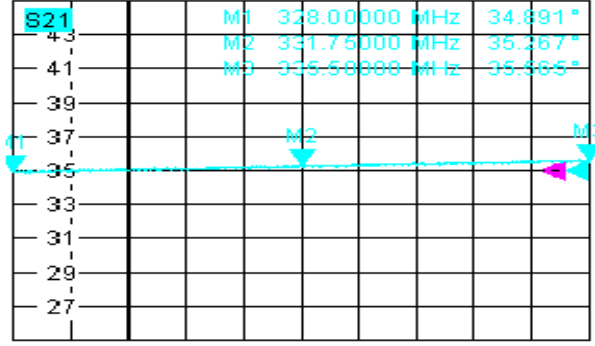


Trc1 **S11** SWR 100 mU/ Ref 1 U Cal  
 Mem5[Trc1] **S21** SWR 100 mU/ Ref 1 U Invis



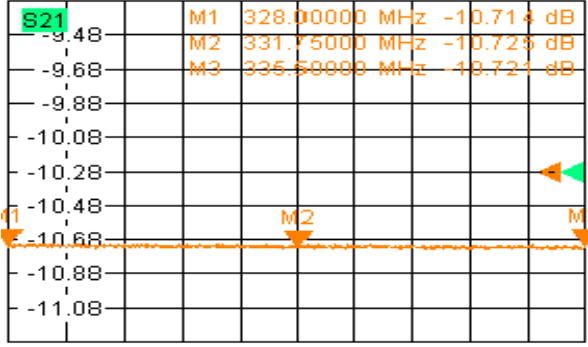
Ch1 fb Start 328 MHz dBm Stop 335.5 MHz

Trc2 **S21** Phase unwrap 2° / Ref 35°  
 Mem6[Trc2] **S21** Phase unwrap 2° / Ref 35°



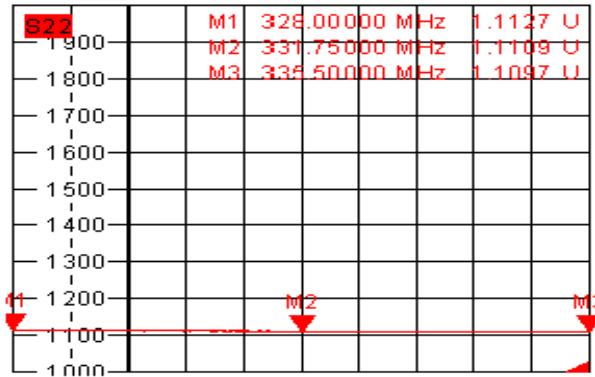
Ch1 fb Start 328 MHz dBm Stop 335.5 MHz

Trc3 **S21** dB Mag 0.2 dB / Ref -10.28 dB  
 Mem7[Trc3] **S21** dB Mag 0.2 dB / Ref -10.28 dB



Ch1 fb Start 328 MHz dBm Stop 335.5 MHz

Trc4 **S22** SWR 100 mU/ Ref 1 U Cal 4

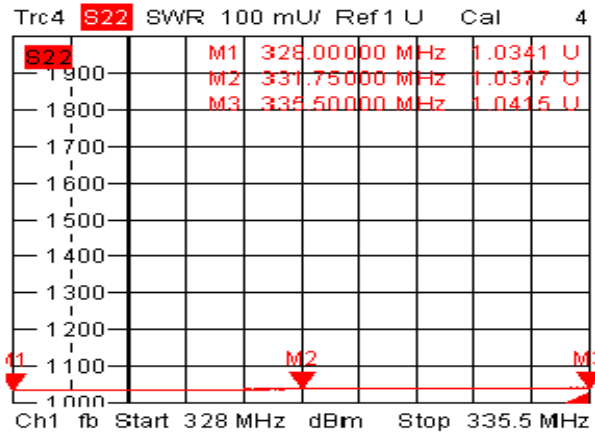
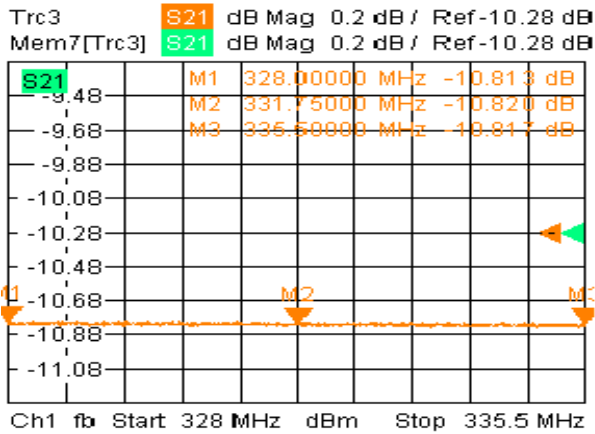
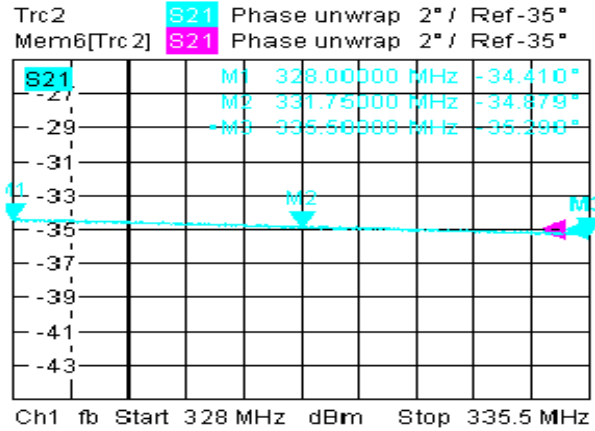
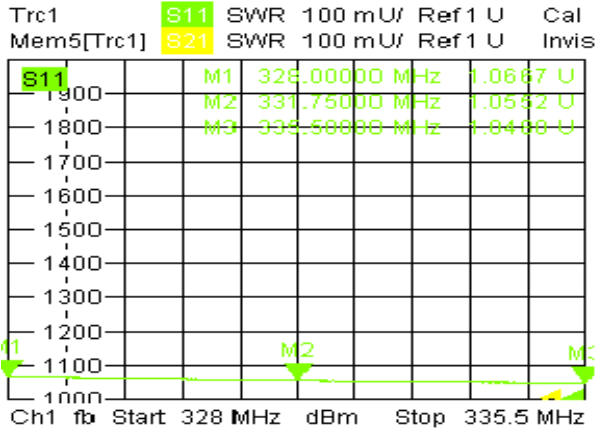


Ch1 fb Start 328 MHz dBm Stop 335.5 MHz

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## J0 to J3\_ Input& Output VSWR, Insertion Loss, Phase Balance



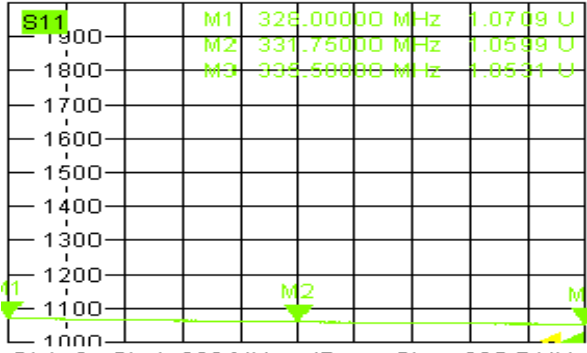
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## J0 to J7\_ Input& Output VSWR, Insertion Loss, Phase Balance

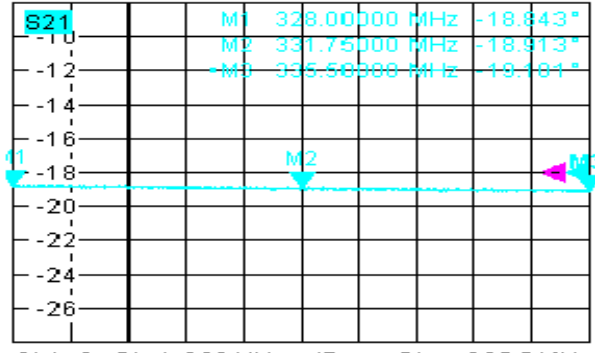


Trc1 **S11** SWR 100 mU/ Ref 1 U Cal  
 Mem5[Trc1] **S21** SWR 100 mU/ Ref 1 U Invis



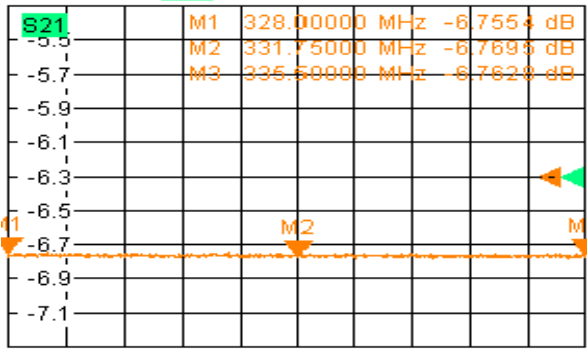
Ch1 fb Start 328 MHz dBm Stop 335.5 MHz

Trc2 **S21** Phase unwrap 2° / Ref -18°  
 Mem6[Trc2] **S21** Phase unwrap 2° / Ref -18°



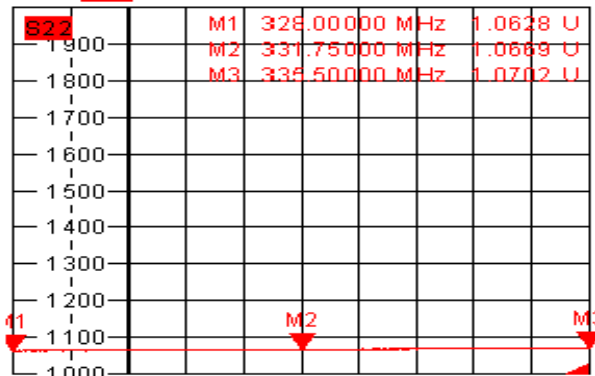
Ch1 fb Start 328 MHz dBm Stop 335.5 MHz

Trc3 **S21** dB Mag 0.2 dB / Ref -6.3 dB  
 Mem7[Trc3] **S21** dB Mag 0.2 dB / Ref -6.3 dB



Ch1 fb Start 328 MHz dBm Stop 335.5 MHz

Trc4 **S22** SWR 100 mU/ Ref 1 U Cal 4

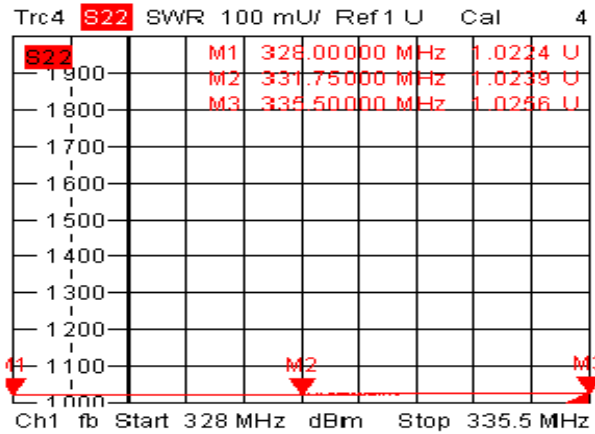
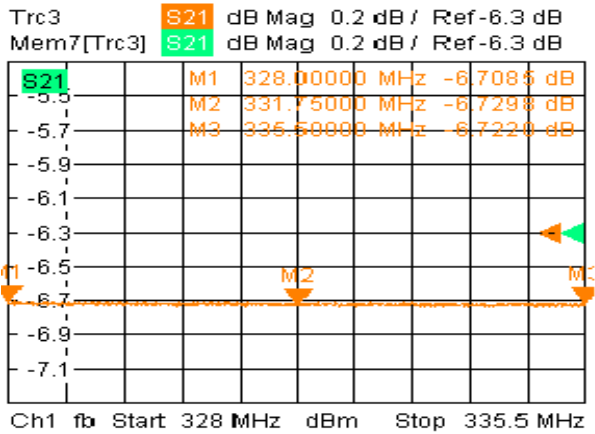
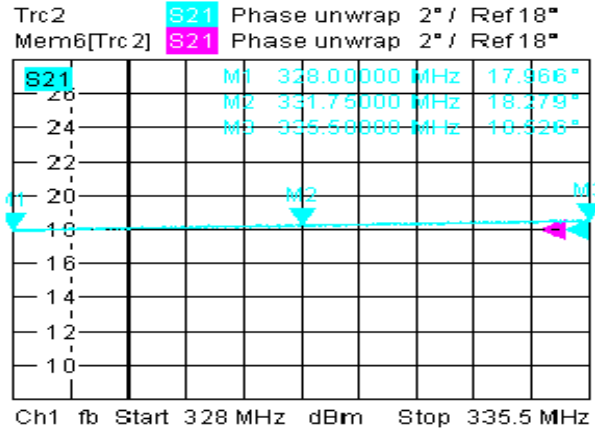
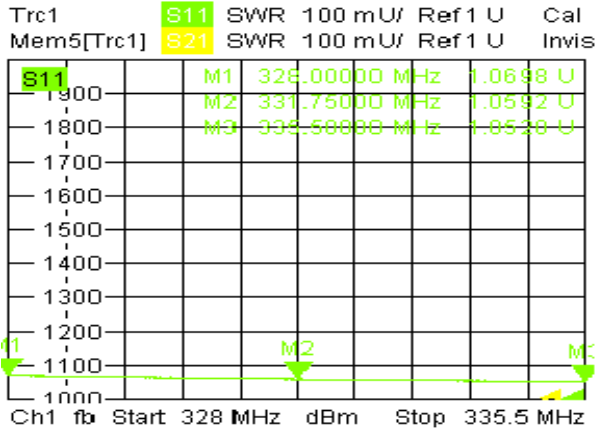


Ch1 fb Start 328 MHz dBm Stop 335.5 MHz

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## J0 to J6\_ Input& Output VSWR, Insertion Loss, Phase Balance



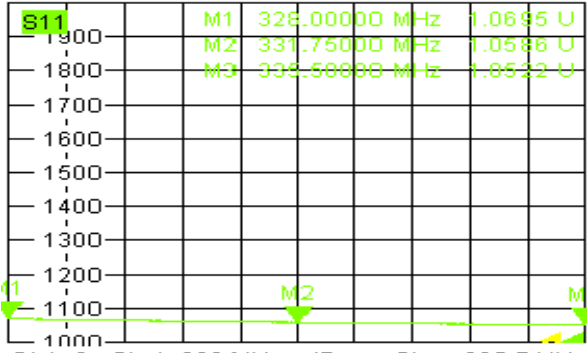
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## J0 to J5\_ Input& Output VSWR, Insertion Loss, Phase Balance

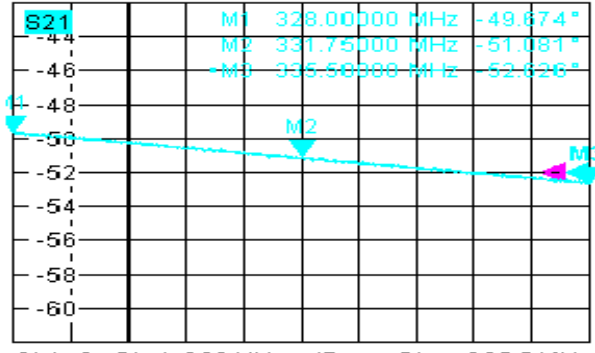


Trc1 **S11** SWR 100 mU/ Ref 1 U Cal  
 Mem5[Trc1] **S21** SWR 100 mU/ Ref 1 U Invis



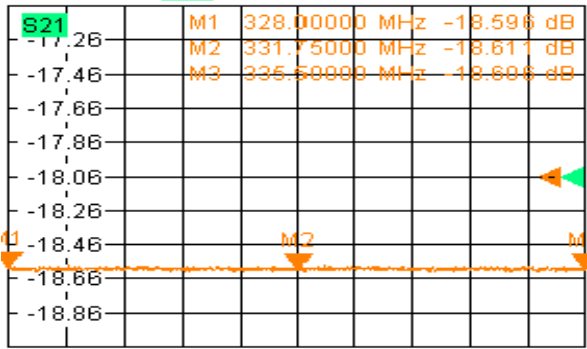
Ch1 fb Start 328 MHz dBm Stop 335.5 MHz

Trc2 **S21** Phase unwrap 2° / Ref -52°  
 Mem6[Trc2] **S21** Phase unwrap 2° / Ref -52°



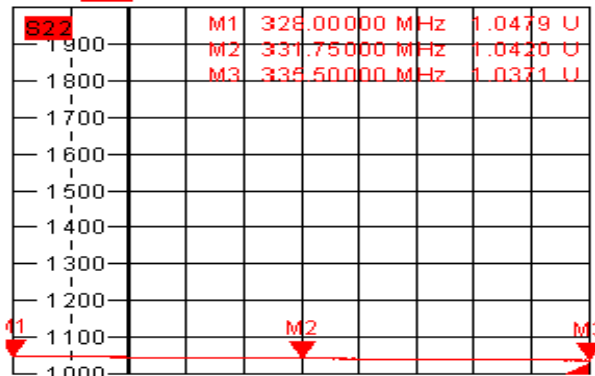
Ch1 fb Start 328 MHz dBm Stop 335.5 MHz

Trc3 **S21** dB Mag 0.2 dB / Ref -18.06 dB  
 Mem7[Trc3] **S21** dB Mag 0.2 dB / Ref -18.06 dB



Ch1 fb Start 328 MHz dBm Stop 335.5 MHz

Trc4 **S22** SWR 100 mU/ Ref 1 U Cal 4



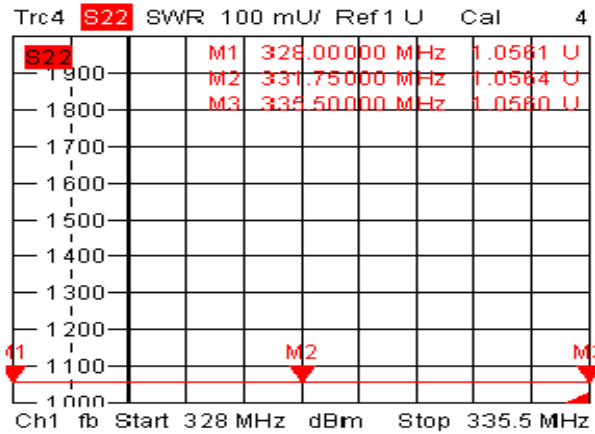
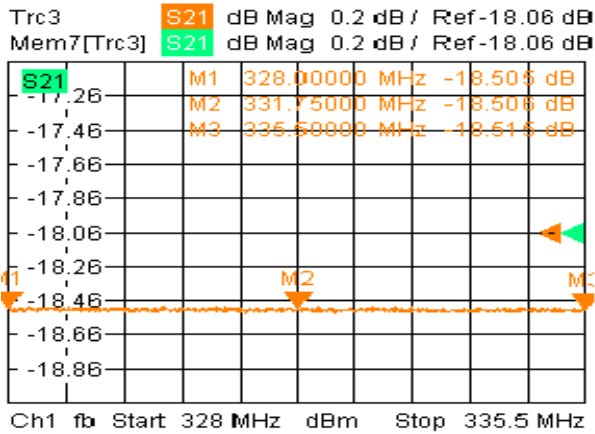
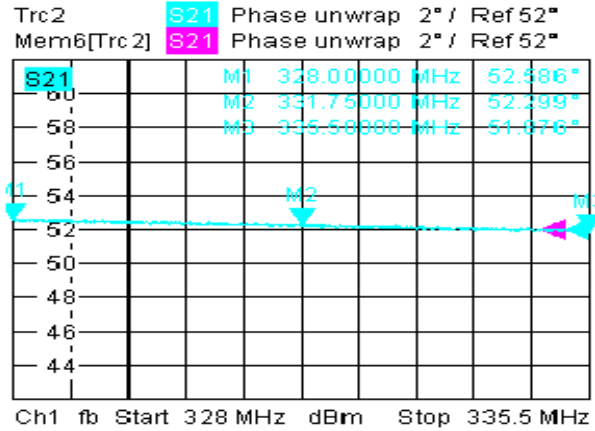
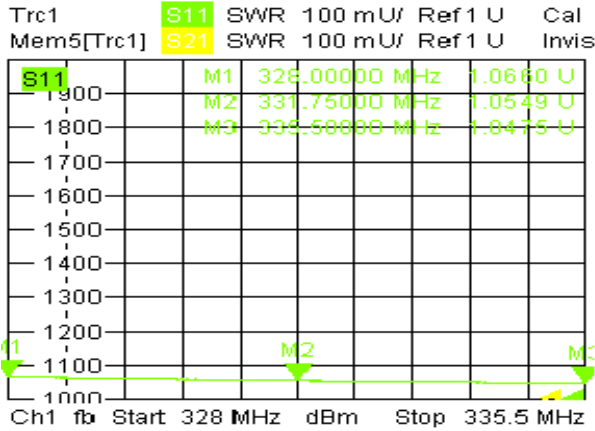
Ch1 fb Start 328 MHz dBm Stop 335.5 MHz

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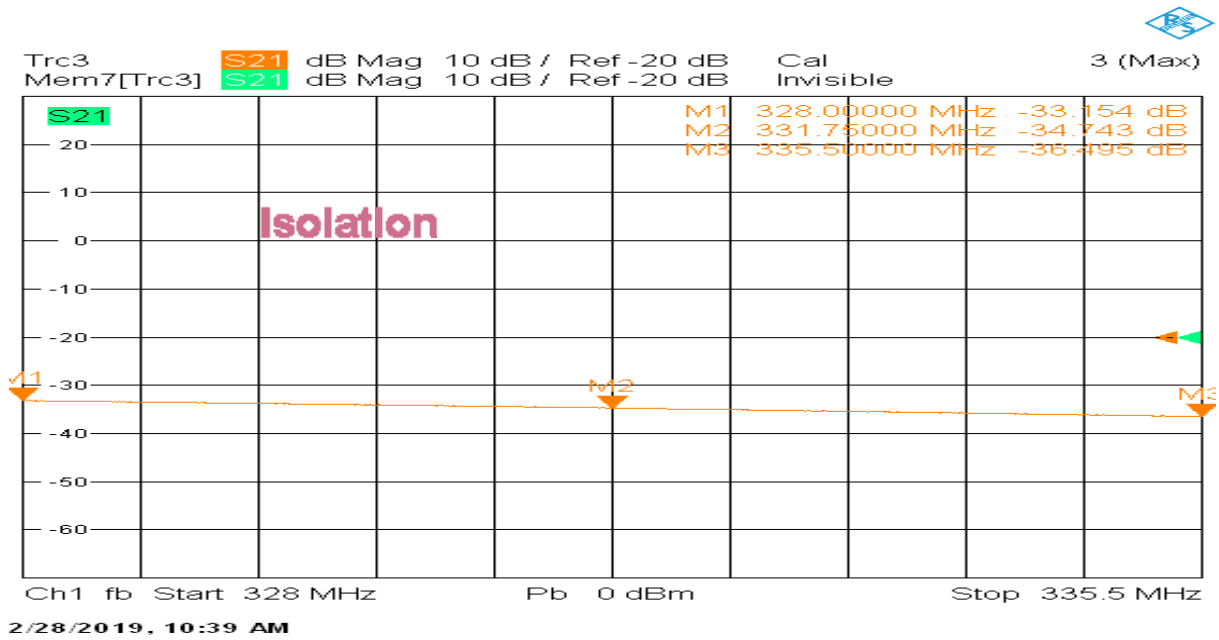
## J0 to J4\_ Input& Output VSWR, Insertion Loss, Phase Balance



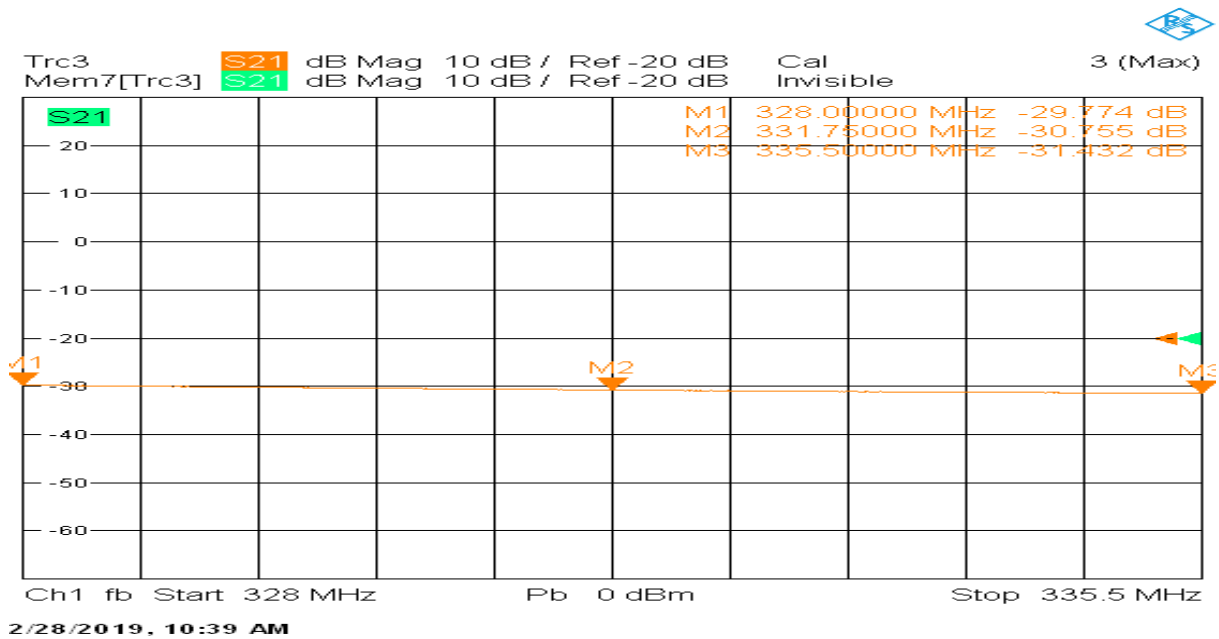
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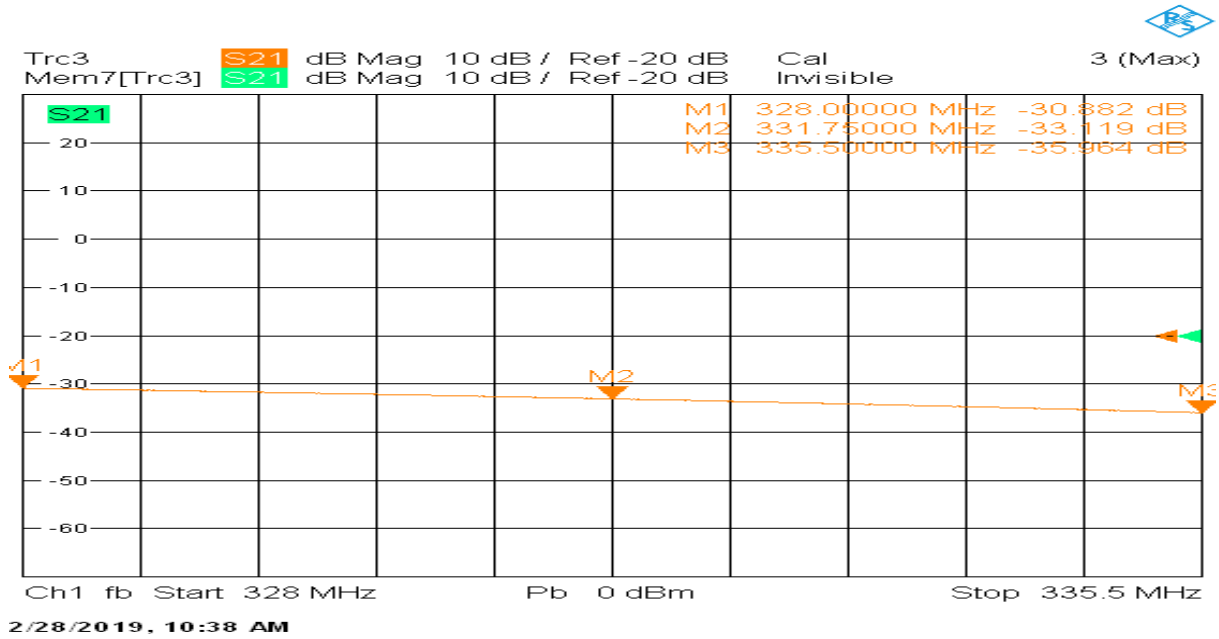
## J1to J2\_ Isolation



## J2to J3\_ Isolation



## J6to J7\_ Isolation



## J4to J5\_ Isolation

