

Reflective Coaxial SP2T Switch 1.34 - 1.4GHz



Features

- Wide Band Operation 1.34-1.4GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation

Typical Applications

- Wireless Infrastructure
- Military and Aerospace
- Test and Measurement

Electrical Specifications, $T_A = +25\text{ }^{\circ}\text{C}$, $V_{dd} = +5\text{V}$, $TTL = 0 / +5\text{V}$

Description	PN: RFSP2TR1350M			
	SP2T Reflective Switch			
	Low Power Cold Switching			
Parameter	Min.	Typ.	Max.	Units
Frequency Range	1.34		1.4	GHz
Insertion Loss		0.4	0.5	dB
Insertion Loss Temperature Coefficient		0.003		dB/ $^{\circ}\text{C}$
Isolation	80	85		dB
Input VSWR		1.2	1.3	:1
Output VSWR		1.2	1.3	:1
RF Input Power (CW)			30	dBm
DC Power Dissipation		0.5		W
0.1dB Compression Point ($P_{0.1\text{dB}}$)		30		dBm
IIP3		49		dBm
Switching Speed	100Max.			ns
Weight	0.75 Max.			ounces
Impedance	50			Ω
Biasing Current (+5V)	150 Max.			mA
Input / Output Connectors	SMA-Female			
Finish	Gold Plated			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional)			

Absolute Maximum Ratings

Biasing Voltage	+5V±10%
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Ordering Information

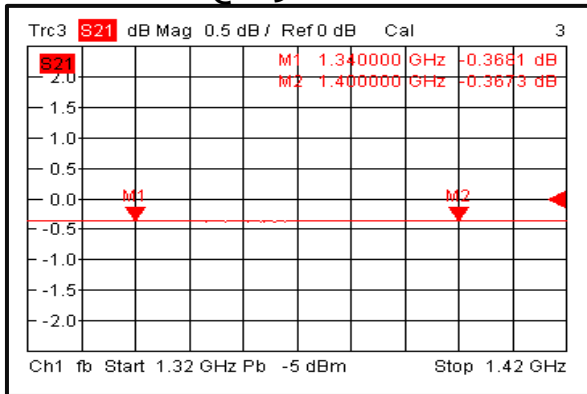
Part No.	Description
RFSP2TR1350M	SP2T 1.34-1.4PIN Diode Switch

Environmental Specifications and Test Standards

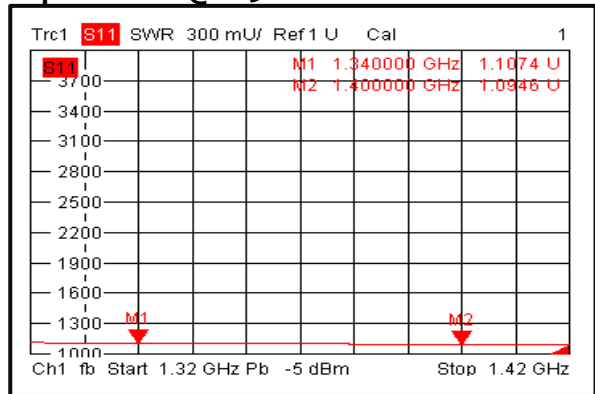
Parameter	Description
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours
Shock	1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude	Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883 (For Hermetically Sealed Units)

Typical Performance Plots

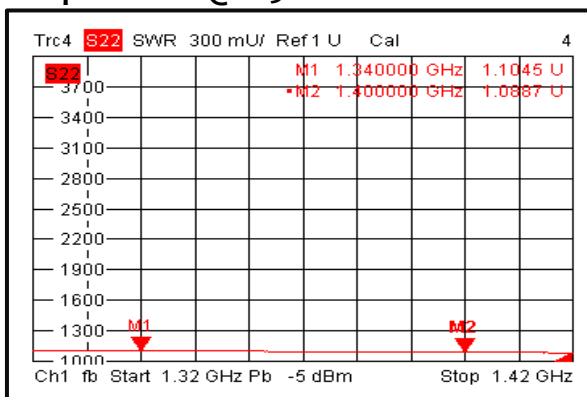
Insertion Loss @+25°C



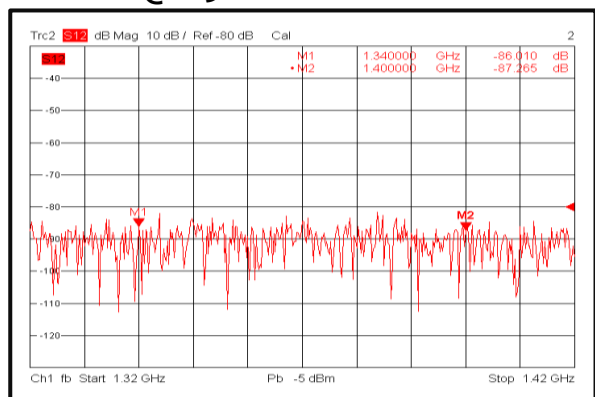
Input VSWR @+25°C



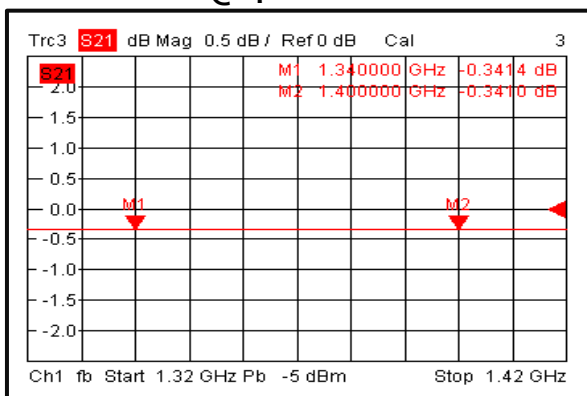
Output VSWR @+25°C



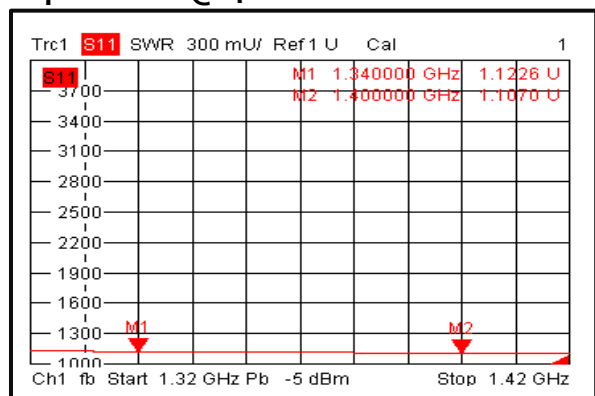
Isolation @+25°C



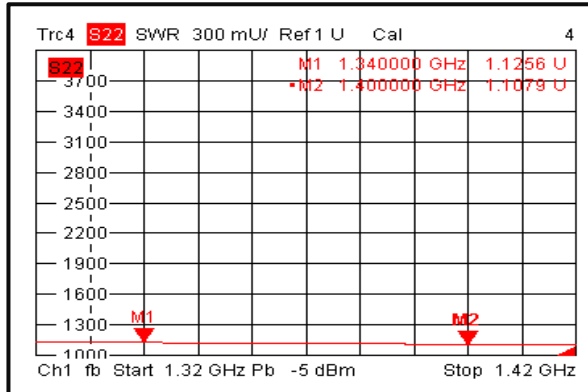
Insertion Loss @-40°C



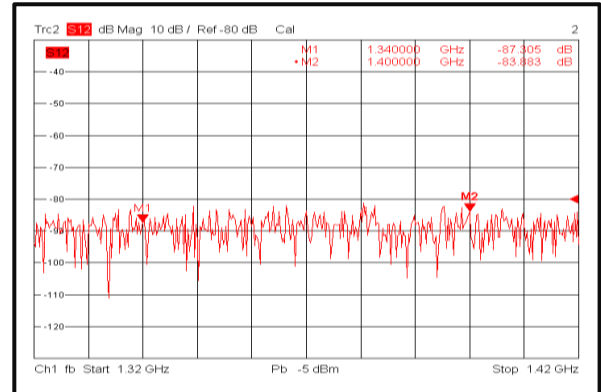
Input VSWR @-40°C



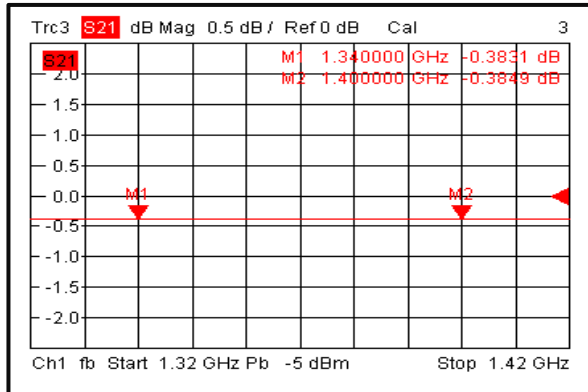
Output VSWR @-40°C



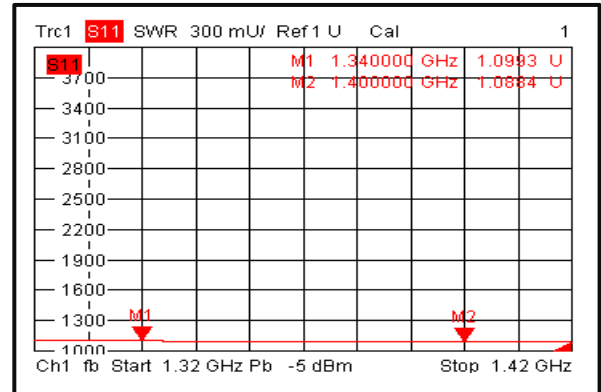
Isolation @-40°C



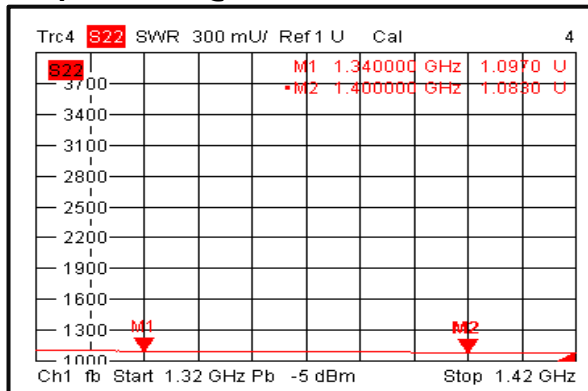
Insertion Loss @+85°C



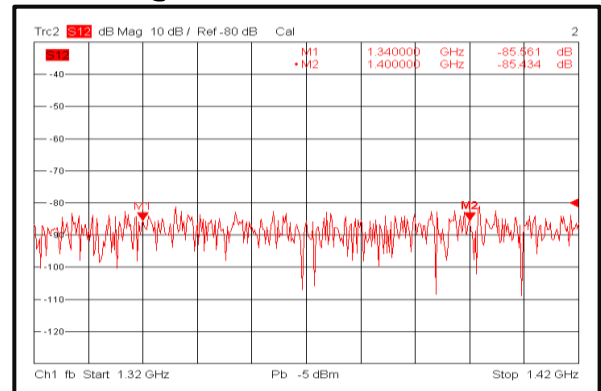
Input VSWR @+85°C



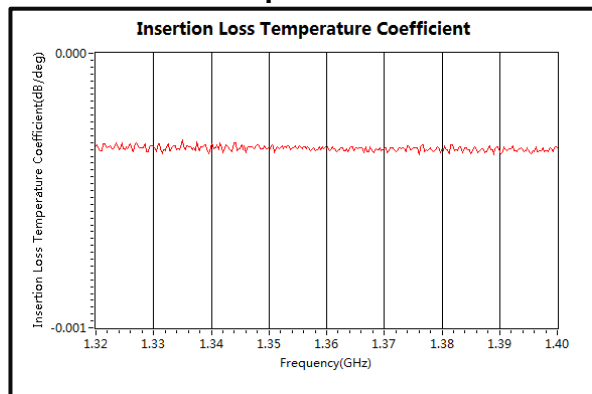
Output VSWR @+85°C



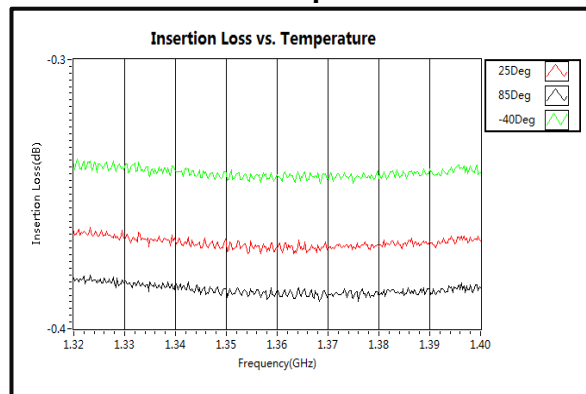
Isolation @+85°C



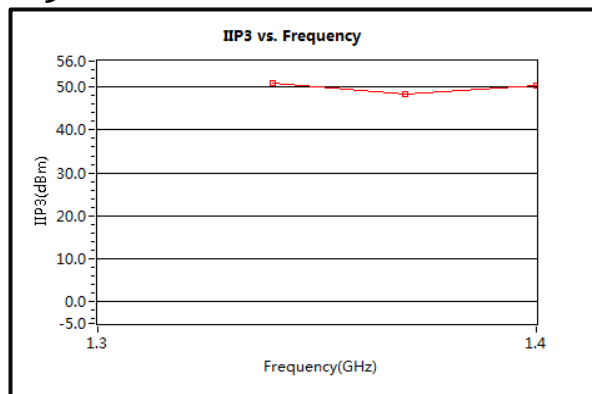
Insertion Loss Temperature Coefficient



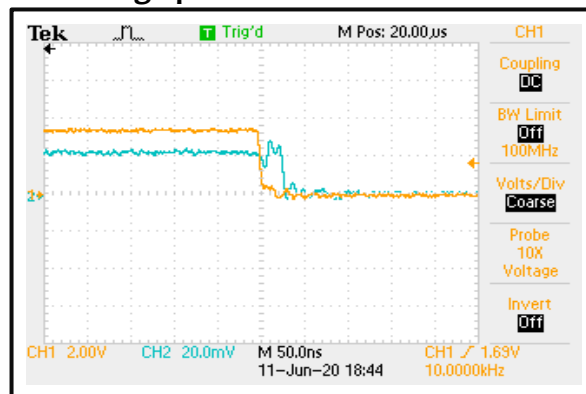
Insertion Loss vs. Temperature



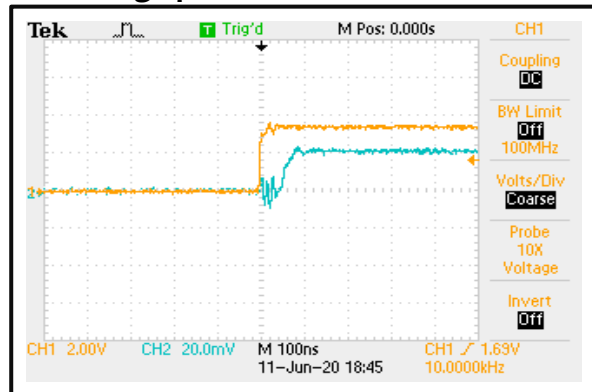
IIP3



Switching Speed



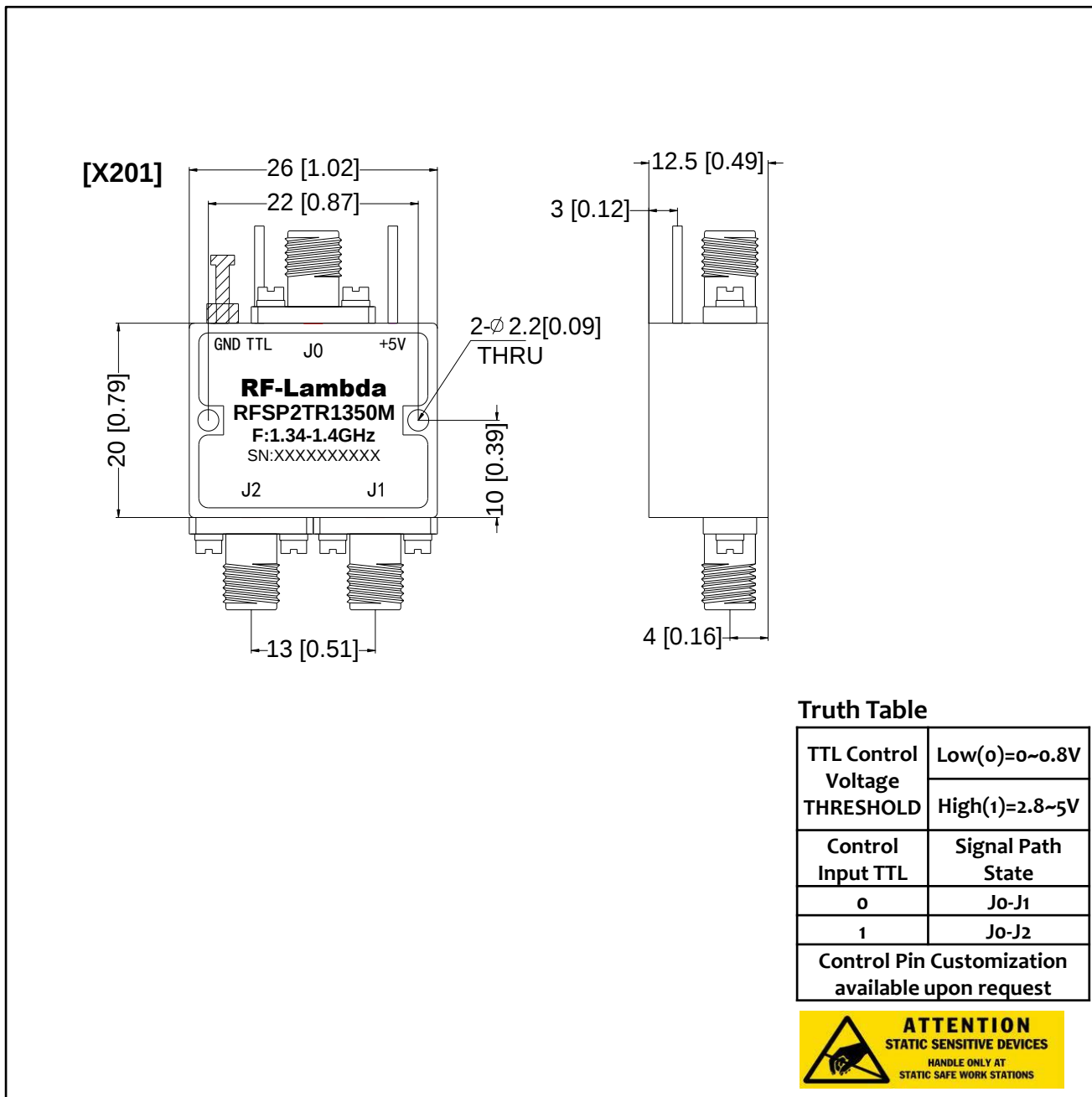
Switching Speed



Outline Drawing:

All Dimensions in mm [inches]

Tolerances ± 0.1 [0.004]



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