NIC
NETWORKS INTERNATIONAL CORPORATION

www.nickc.com
15237 Broadmoor
Overland Park, KS 66223
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Temperature Compensated Cavity Filters

Overview

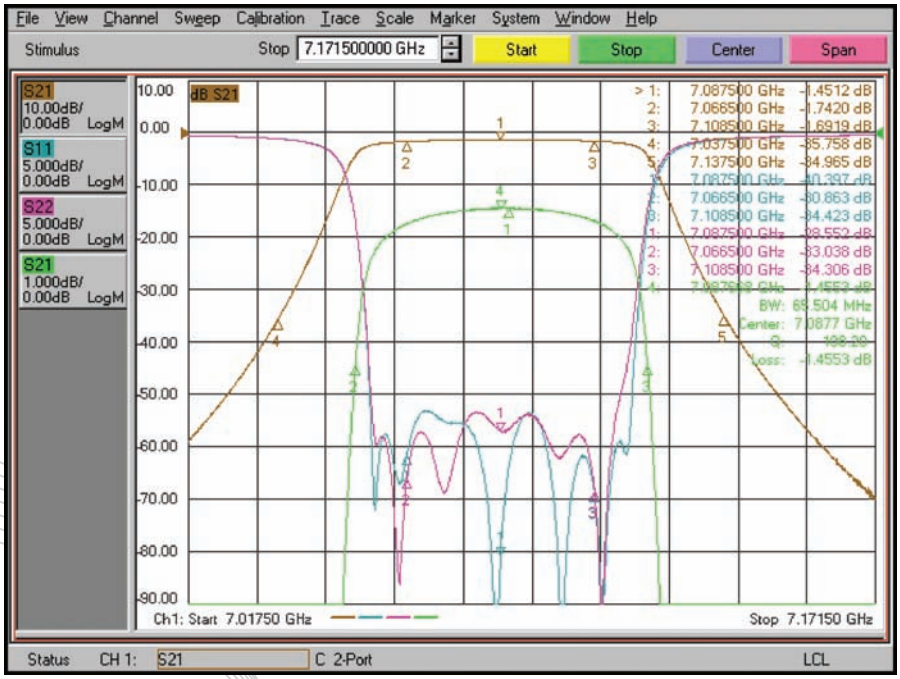
NIC introduces its temperature compensated cavity filters with percentage bandwidth as narrow as 0.5%. Our temperature compensated design offers an economic solution to meet the temperature performance but avoids using expensive cavity housing material such as Invar. The design is also optimized with maximum resonator quality factor which ensures low insertion loss operation of the filter.

Features

- Stable Operation Over Temperature
- Narrow Bandwidth
- High Selectivity + Low Insertion Loss
- Custom Designs Available
- Stability as low as ± 1ppm

SPECIFICATIONS	
Center Frequency (Fo)	7.0875 GHz
Ripple Bandwidth	42 MHz min
Passband Flatness	0.1dB max over Fo ± 12 MHz
	0.6 dB max over Fo ± 21 MHz
Insertion Loss	1.7 dB max @ Fo
Group Delay Variation	2 ns max over Fo ± 12 MHz
	7 ns max over Fo ± 21 MHz
Rejection	30 dB min @ Fo ± 50 MHz
	55 dB min @ Fo ±70 MHz
	60 dB min @ DC to (Fo - 100 MHz)
	60 dB min @ (Fo + 100 MHz) to 2Fo
Input/Output VSWR	1.2:1 max over Fo ± 21 MHz
Input/Output Impedance	50 Ohms
Power Handling	20 W max
Operating Temperature Range	0 to +65 °C
Input/Output Connectors	SMA female
Package Size	6.0" x 1.5" x 0.9" + SMA
Package Mounting	4 x Threaded inserts: 4-40

S Parameters Measured at Room Temperature



ISO 9001:2000
AS9100B
CERTIFIED

Datasheet specifications subject to change without notice.

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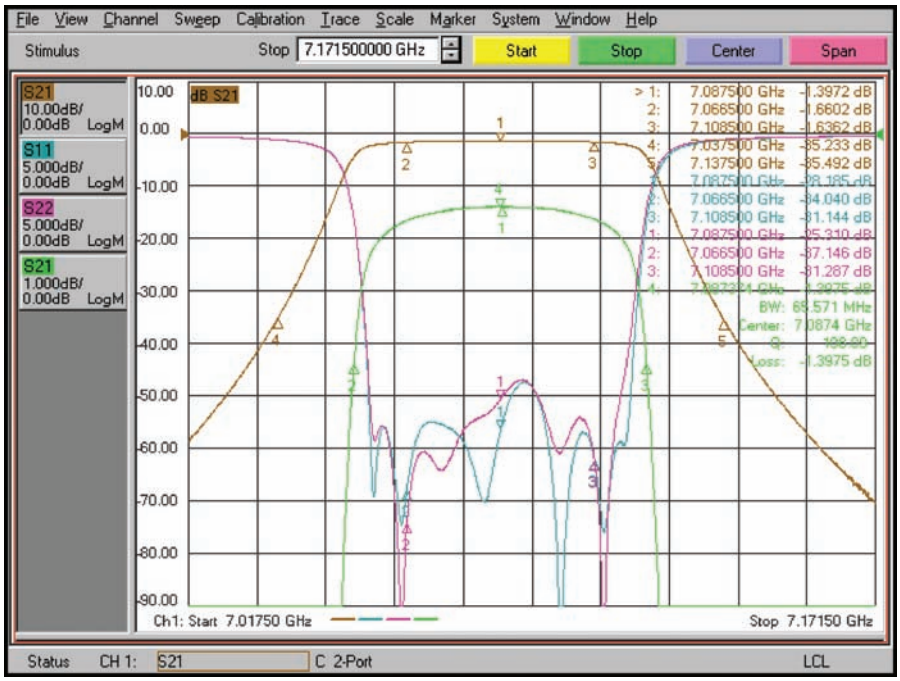
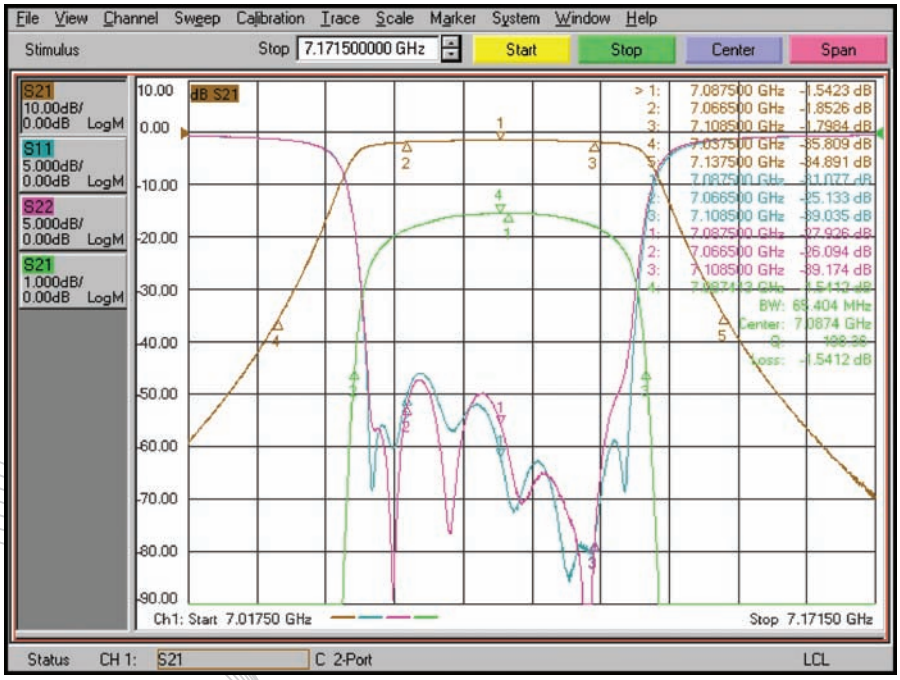
Temperature Compensated Cavity Filters

S Parameters Measured at 0 °C



S Parameters Measured at 65 °C



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