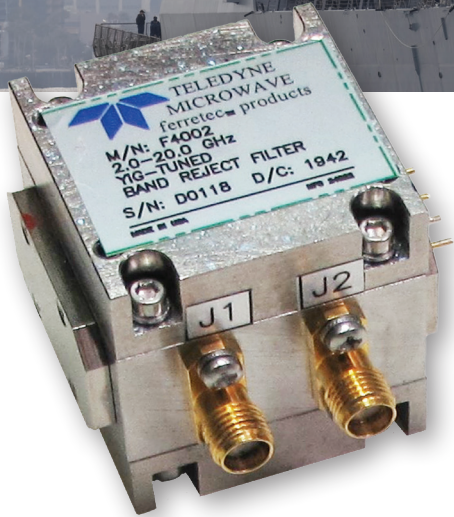


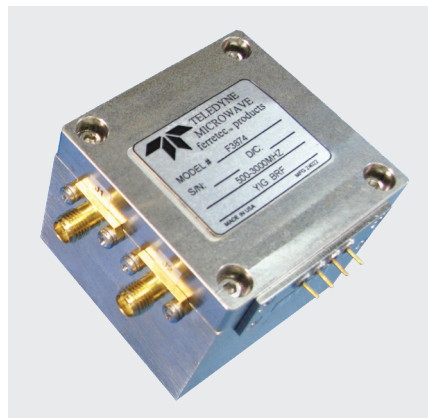
Teledyne Super Notch YIG Tuned Band Reject Filters

Patented YIG Resonator Technology



Overview

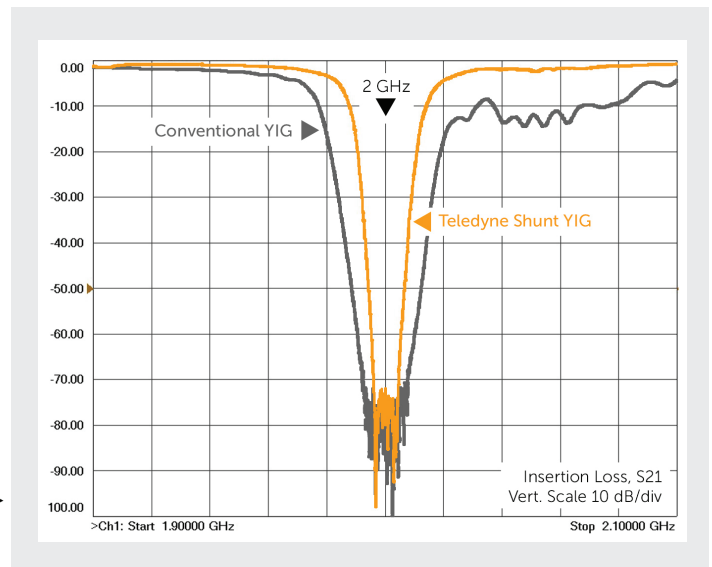
Teledyne RF & Microwave offers a broad portfolio of oscillators, bandpass filters, and super notch band reject filters designed and manufactured using Yttrium Iron Garnet (YIG) spheres. Ideal for electronic warfare applications, Teledyne's newest super notch band reject filters feature patented shunt YIG resonator technology. This innovative technology delivers industry-leading performance with up to 120% improvement in 40dB rejection bandwidth compared to conventional super notch band reject filters.



F3874 notch performance compared to a conventional YIG approach

Features

- Patented shunt YIG resonator technology
- 22 MHz 40dB rejection bandwidth minimum
- 160 MHz 3dB notch bandwidth maximum
- 2-20 GHz notch frequency range over 1.8-20.2 GHz passband range
- Designed and manufactured in the USA

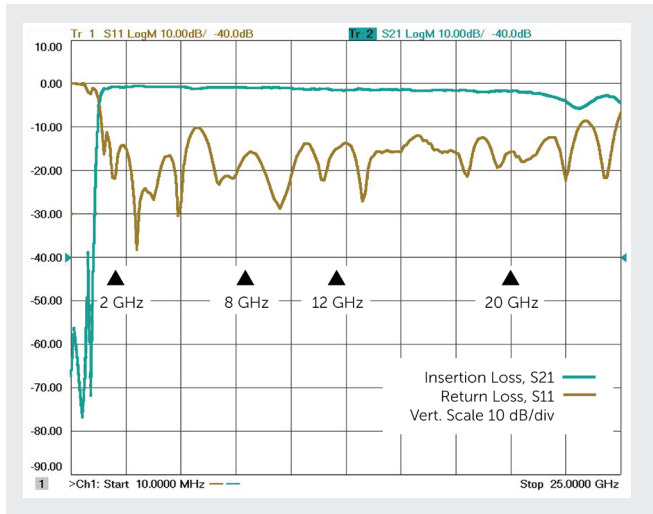


Technical Specifications

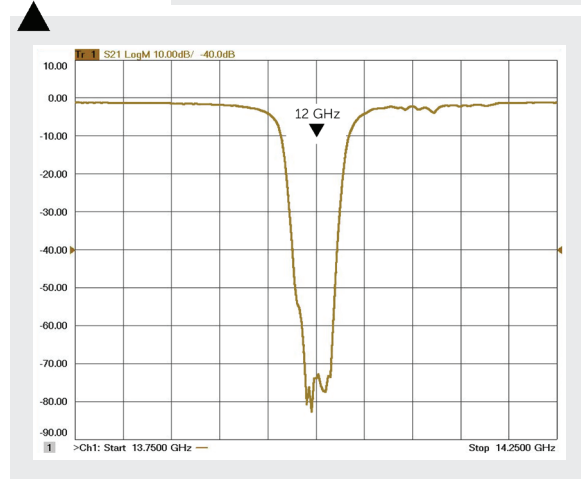
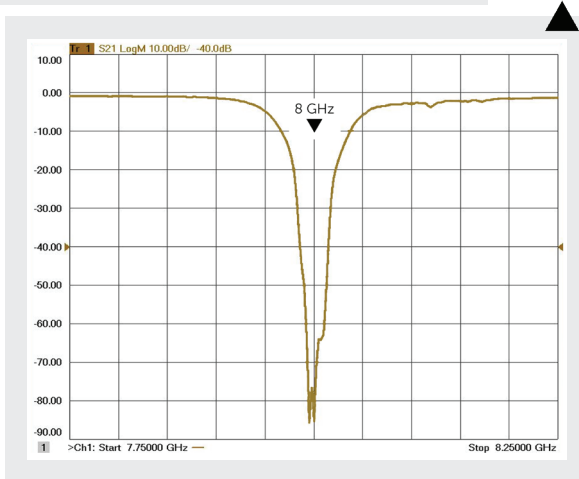
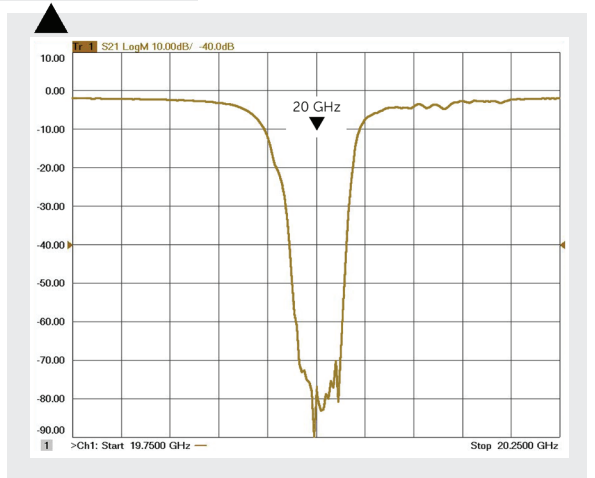
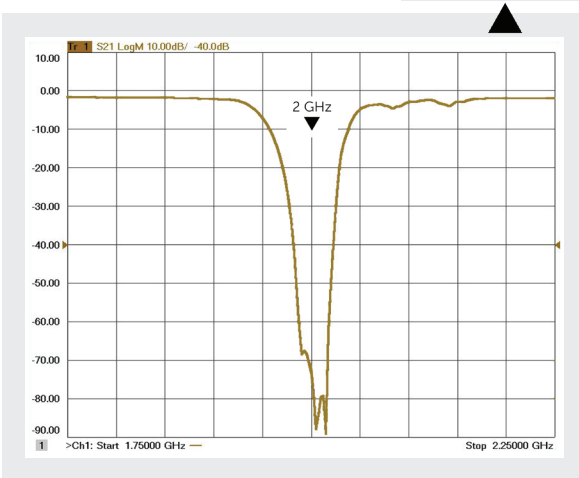
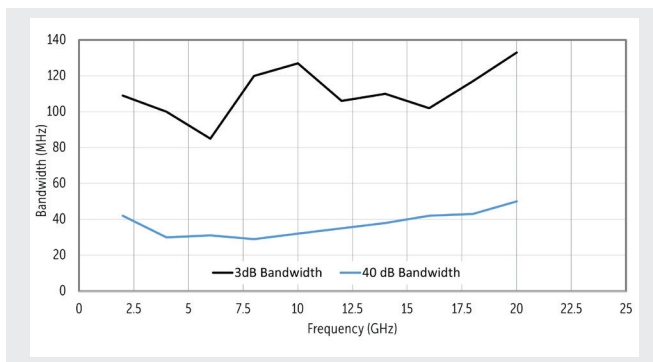
	F3874	F3875	F4002
Passband Frequency Range (GHz)	0.4 - 3.0	1.8 - 18.2	1.8 - 20.2
Notch Frequency Range (GHz)	0.5 - 3.0	2.0 - 6.0	2.0 - 20.0
Passband Insertion Loss (dB)	<1.5	<1.8	<1.9
Passband Return Loss (dB)	>10	>10	>10
Min 40dB Rejection Bandwidth (MHz)	6	30	22
Max 3dB Notch Bandwidth (MHz)	50 @ 2.0 GHz 70 @ 2.6 GHz 90 @ 3.0 GHz	150	160
Max Notch Tracking Spur Amplitude (dB)	3	4	4
0 to +70 °C Temperature Drift (MHz)	10	10	20
Input Power (dBm)	+5	+10	+10
Tuning sensitivity, typical (MHz/mA)	10	20	20
Tuning Coil Resistance (Ohms)	8	6	6
Tuning Coil Inductance (mH)	200	65	65
Heater Voltage (V)	28	28	28
Heater Current, Steady State (mA)	150	150	150
Heater Current, Surge (mA)	1,000	1,000	1,000

Example Performance: F4002

Insertion Loss,
Return Loss



Notch Performance

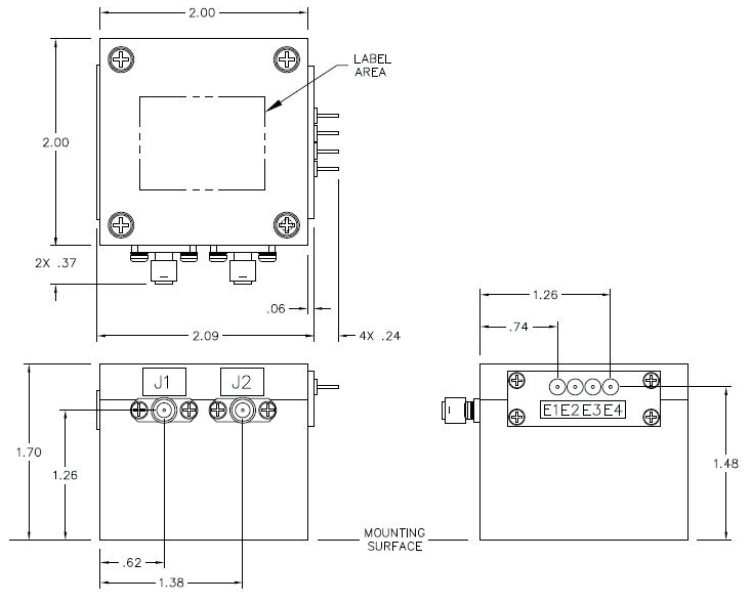


Outline Drawings

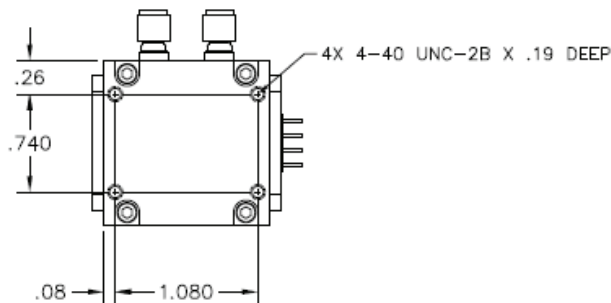
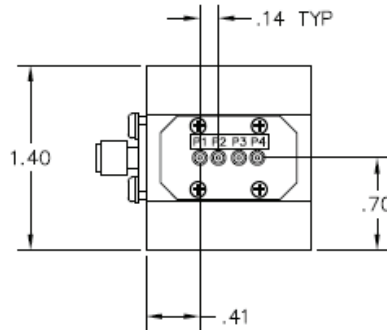
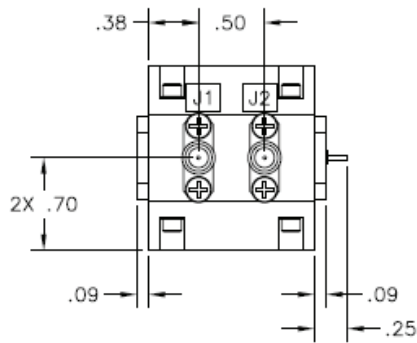
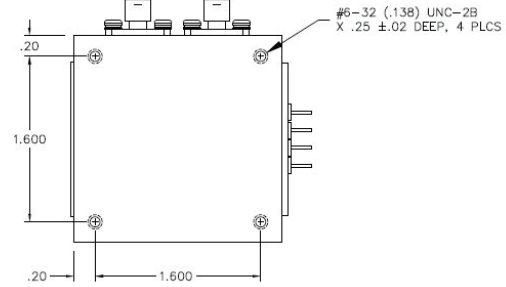
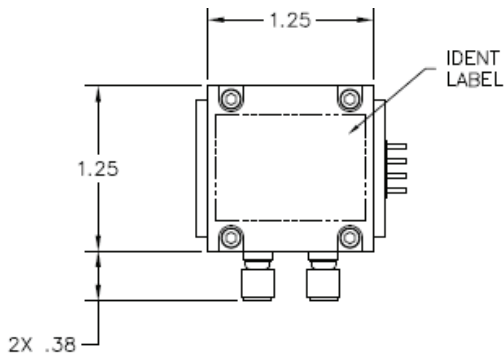
F3874 Package



PIN	FUNCTION	
E1	COIL +	1
E2	HTR	
E3	HTR	
E4	COIL -	1
J1	RF IN	
J2	RF OUT	



F3875, F4002 Package



CONN	PIN NO.	FUNCTION
J1	SMA-F	RF INPUT
J2	SMA-F	RF OUTPUT
2	P1 1	TUNE +
	P1 2	HEATER
	P1 3	HEATER
2	P1 4	TUNE -

Other Components

In addition to YIG band rejection filters, Teledyne RF & Microwave offers a variety of other components to simplify your next design, including:

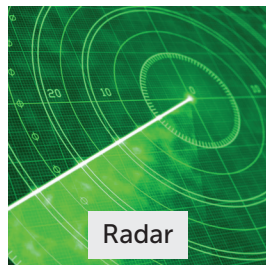
- Amplifiers
- Attenuators
- Bulk Acoustic Wave (BAW) delay devices,
- Circulators
- Detectors
- Frequency doublers
- IQ networks
- Isolators
- Linearizers
- Mixers
- Phase shifters
- Power dividers
- Switches
- Voltage controlled oscillators
- YIG filters
- YIG oscillators



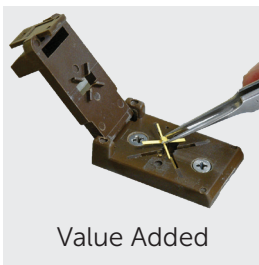
About Us

100+

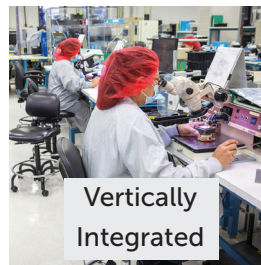
Defense Platforms Served



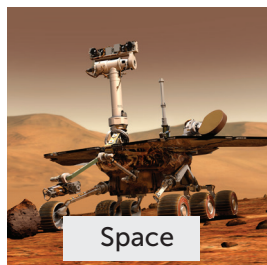
Radar



Value Added



Vertically Integrated



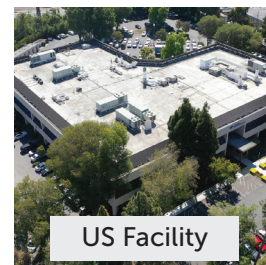
Space

30+

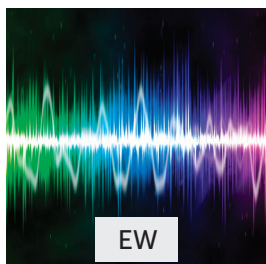
Space Missions Flown



YIG Technology



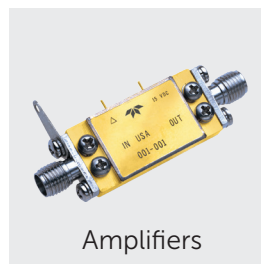
US Facility



EW



UAVs



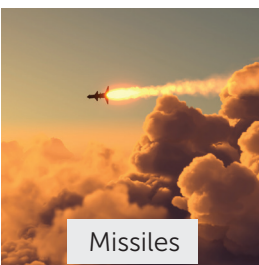
Amplifiers

400+

Standard Amplifiers Offered



Multi-Function



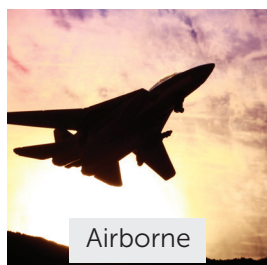
Missiles

MIL-PERF 38534

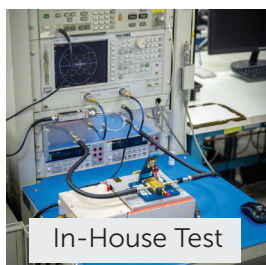
Class H & K
TRB



Modular



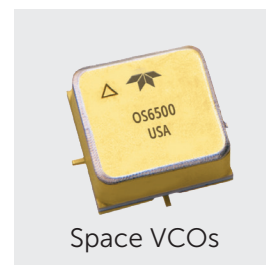
Airborne



In-House Test

40+

Years of Heritage



Space VCOs

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