2525 Shader Road, Orlando Florida 32804 USA
Phone: 407-298-2000 Fax: 407-293-2979
Website: mtronpti.com NYSE MKT: LGL

MtronPTI Model: UFQX9985
ENG. Approval:
DATE 10 / 18 / 19
MFG. Approval:
DATE 10 / 18 / 19
QA Approval:
DATE 10 / 22 / 19

MtronPTI Wideband Quadruplexer
MtronPTI P/N: UFQX9985

I. General & Electrical Requirements :

Parameter	Unit	Filter 1	Filter 2	Filter 3	Filter 4
Pass band	GHz	2-3.8	4.2-7.6	8.4-11.4	12.6-18.0
Insertion Loss	dB	≤1	≤1.1	≤1	≤1
Return Loss	dB	≥14	≥14	≥14	≥14
Stopband Rejection: ≥60dB	GHz	4.4 to 18.0	DC to 3.6	DC to 7.6	DC to 11.3
			8.5 to 18.0	13.4 to 18.0	
Input Power	W	5			

Mechanical Specifications

Operating Temp	-55 to +85	°C
Dimensions (LWH)	70 x 44 x 10	mm
Connectors	SMA-F	

Test Conditions

Humidity	Up to 100% non-condensation, MIL-STD-202F, Method 106G
Mechanical Shock	20g, ½ sine, 11mili-sec MIL-STD-202, Method 213B, Test Condition A
Vibration Sinusoidal	10g peak, sine .06" double amplitude, 10-2000Hz, MIL-STD-202, Method 204D, Test Condition C
Thermal Shock	MIL-STD-202 Method 107G, Condition A, 5 cycles -55°C to +85°C
EMI/EMC	Units designed to meet EMI/EMC requirements in accordance with MIL-STD-461E
Finish	Epoxy Painting

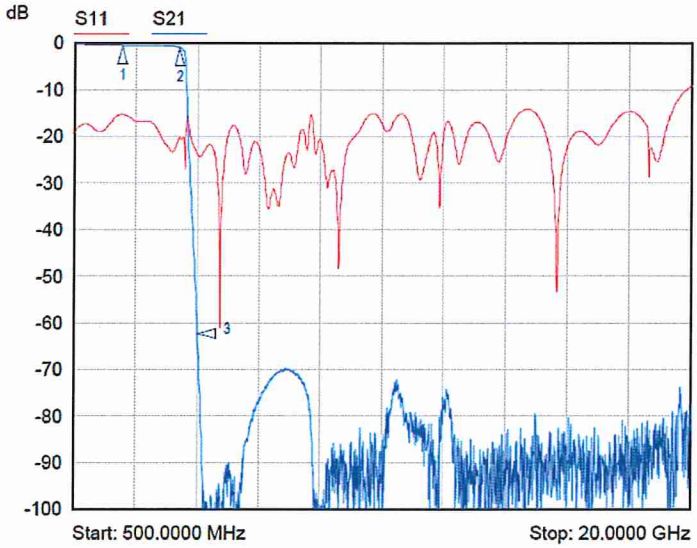
MtronPTI
...when timing matters

2525 Shader Road, Orlando Florida 32804 USA
Phone: 407-298-2000 Fax: 407-293-2979
Website: mtronpti.com NYSE MKT: LGL

MtronPTI Wideband Quadruplexer
MtronPTI P/N: UFQX9985

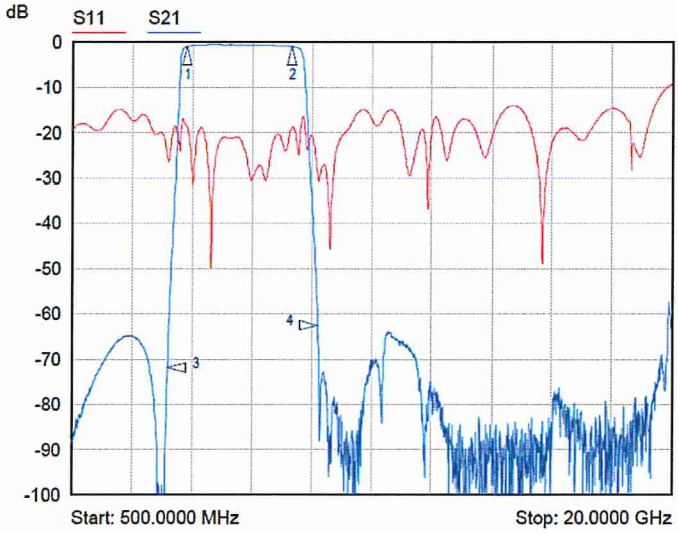
II. Design Simulation Plots:

Filter 1



Mkr	Trace	X-Axis	Value	Notes
1 ▽	S21	2.0000 GHz	-0.42 dB	
2 ▽	S21	3.8000 GHz	-0.96 dB	
3 ▽	S21	4.4000 GHz	-62.27 dB	

Filter 2



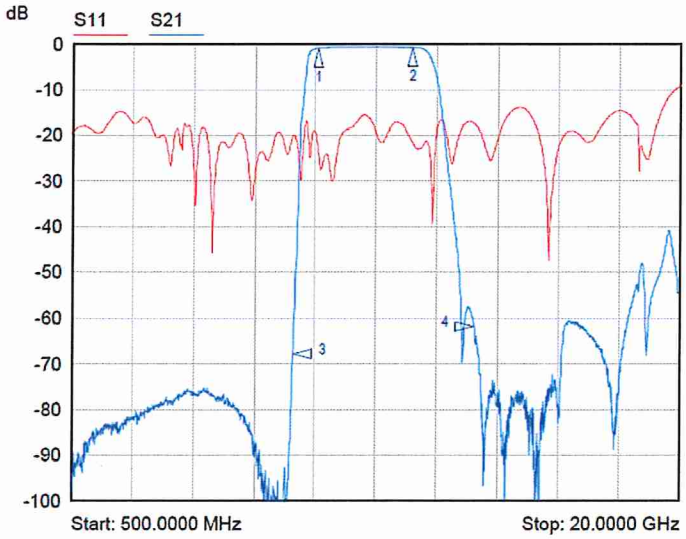
Mkr	Trace	X-Axis	Value	Notes
1 ▽	S21	4.2000 GHz	-0.96 dB	
2 ▽	S21	7.6000 GHz	-1.01 dB	
3 ▽	S21	3.6000 GHz	-71.89 dB	
4 ▽	S21	8.5000 GHz	-62.49 dB	

MtronPTI
...when timing matters

2525 Shader Road, Orlando Florida 32804 USA
Phone: 407-298-2000 Fax: 407-293-2979
Website: mtronpti.com NYSE MKT: LGL

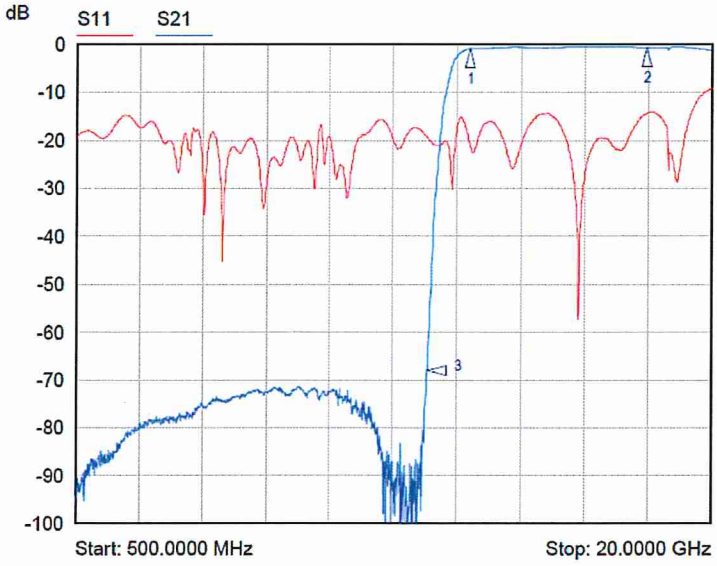
MtronPTI Wideband Quadruplexer
MtronPTI P/N: UFQX9985

Filter 3



Mkr	Trace	X-Axis	Value	Notes
1 ▽	S21	8.4000 GHz	-0.93 dB	
2 ▽	S21	11.4000 GHz	-0.75 dB	
3 ▽	S21	7.6000 GHz	-67.85 dB	
4 ▽	S21	13.4000 GHz	-61.76 dB	

Filter 4



Mkr	Trace	X-Axis	Value	Notes
1 ▽	S21	12.6000 GHz	-0.91 dB	
2 ▽	S21	18.0000 GHz	-0.67 dB	
3 ▽	S21	11.3000 GHz	-67.97 dB	

2525 Shader Road, Orlando Florida 32804 USA
Phone: 407-298-2000 Fax: 407-293-2979
Website: mtronpti.com NYSE MKT: LGL

...when timing matters

MtronPTI Wideband Quadruplexer
MtronPTI P/N: UFQX9985

III. Data Sheet Revision Table:

Date	Rev.	Author	Details of Revision
09-05-19	A	BRR	Original Release.