



ANNEX 1: Mandatory Requirements Evaluation for 1500 MHz Radio Frequency Filter Kit

Item #	Category	Required Specification	Evaluation Method	Cross Reference to Bid
General Filter Kit:				
1	Storage Case	The filter must be packaged in a single, compact, hard carrying case that provides soft interior padding for the safe storage of all components, and accessories. The case must meet IEC Ingress Protection IP 64 rating or better IP rating.	Published vendor product information review <u>or</u> Proof of compliance	
Coverage band 1500 MHz to 3000 MHz				
2	Filter Type	The filter must be a passive, tunable, bandpass filter.	Published vendor product information review <u>or</u> Proof of compliance	
3	Physical Form Factor	The filter offered must be in the form factor of an enclosed “brick” shaped unit.	Published vendor product information review <u>or</u> Proof of compliance	
4	Frequency Coverage	The filter must cover its entire required center frequency operating range without any gaps.	Published vendor product information review <u>or</u> Proof of compliance	
5	Lowest tunable center frequency	The minimum tuned center frequency of the filter must be less than or equal to 1500 MHz.	Published vendor product information review <u>or</u> Proof of compliance	
6	Highest tunable center frequency	The maximum tuned center frequency of the filter must be greater than or equal to 3000 MHz.	Published vendor product information review <u>or</u> Proof of compliance	
7	3 dB Bandwidth	The filter must provide a tuned frequency dependent nominal 3 dB bandwidth not exceeding 1% of the tuned center frequency across the entire required frequency range of the unit (i.e. 3 dB BW of 15.0 MHz @ Fc = 1500 MHz increasing to 3 dB BW of 30 MHz @ Fc = 3000 MHz).	Published vendor product information review <u>or</u> Proof of compliance	
8	Passband Ripple	The passband ripple must not exceed +/- 1 dB across the entire required frequency range of the unit.	Published vendor product information review <u>or</u> Proof of compliance	
9	External Tuning Control	The filter must be user tunable by the means of a single tuning knob/dial to adjust all internal ganged filter poles simultaneously.	Published vendor product information review <u>or</u> Proof of compliance	
10	Tuning Scale	The filter must provide an integrated, mechanical, readout to indicate the approximate center frequency the filter is tuned to.	Published vendor product information review <u>or</u> Proof of compliance	
11	Tuning Scale Accuracy	The integrated tuning readout must offer a minimum accuracy of 2 % of the indicated frequency.	Published vendor product information review <u>or</u> Proof of compliance	
12	Filter Impedance	Nominal filter impedance must be 50 ohms.	Published vendor product information review <u>or</u> Proof of compliance	
13	Filter Insertion Loss	The filter insertion loss must not exceed 3.0 dB across the entire required frequency range.	Published vendor product information review <u>or</u> Proof of compliance	

14	Filter VSWR	The maximum allowable VSWR across the entire required frequency range must not exceed 1.5:1.	Published vendor product information review <u>or</u> Proof of compliance	
15	Power Handling	The filter must be capable of handling a CW input power of 10 watts.	Published vendor product information review <u>or</u> Proof of compliance	
16	RF Connector Type	The input and output RF connectors must be female N type.	Published vendor product information review <u>or</u> Proof of compliance	
17	Filter Dimensions	L x W x H must be less than or equal to 20 x 10 x 10 centimeters	Published vendor product information review <u>or</u> Proof of compliance	
18	Operating Temperature	The filter must be able to function within required specifications at room temperature.	Published vendor product information review <u>or</u> Proof of compliance	
19	Corrosion Protection	The exterior surfaces of the filter must be protected from corrosion.	Published vendor product information review <u>or</u> Proof of compliance	