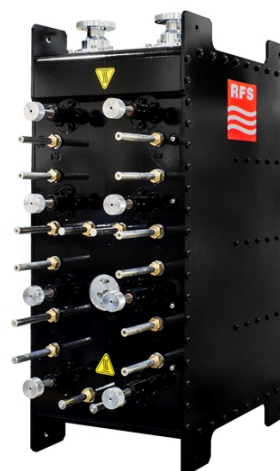




The RFS 8PPXX110C is designed for global filtering applications associated with DTV television transmission. It is an 8-pole natural air cooled filter incorporating two cross couplings to meet all mask requirements.

**FEATURES / BENEFITS**

- Very compact for easy integration into equipment.
- Very low insertion loss (lowest for this size).
- Highest power rating for size/class.
- Tunable over full VHF band (170 – 230 MHz).
- Adjustable bandwidth, available for 6 and 7 MHz channels for global applications.
- External, non-invasive coupling adjustment.
- Tunable for ETSI, ISDB-T critical and ATSC 1.0 and ATSC 3 applications.
- -5 to 55°C degree ambient temperature operation.
- Natural air cooled.
- High Attenuation at 2fc and 3fc. May save the cost of Low Pass Filters.



8PPXX110C Natural Air Cooled Filter

**Technical features**

**GENERAL SPECIFICATIONS**

<b>Product Line</b>		Filters
<b>Product Type</b>		Band III (VHF) TV Bandpass Filter
<b>Model</b>		8PPXX110C
<b>Filter type</b>		8 Pole with 2 cross couplings - 110 mm ground plane spacing
<b>Input / Output Connector</b>		1-5/8" EIA Unflanged Female (Standard) 7/8" EIA Flanged Female (Optional) or 7-16 DIN (Optional)

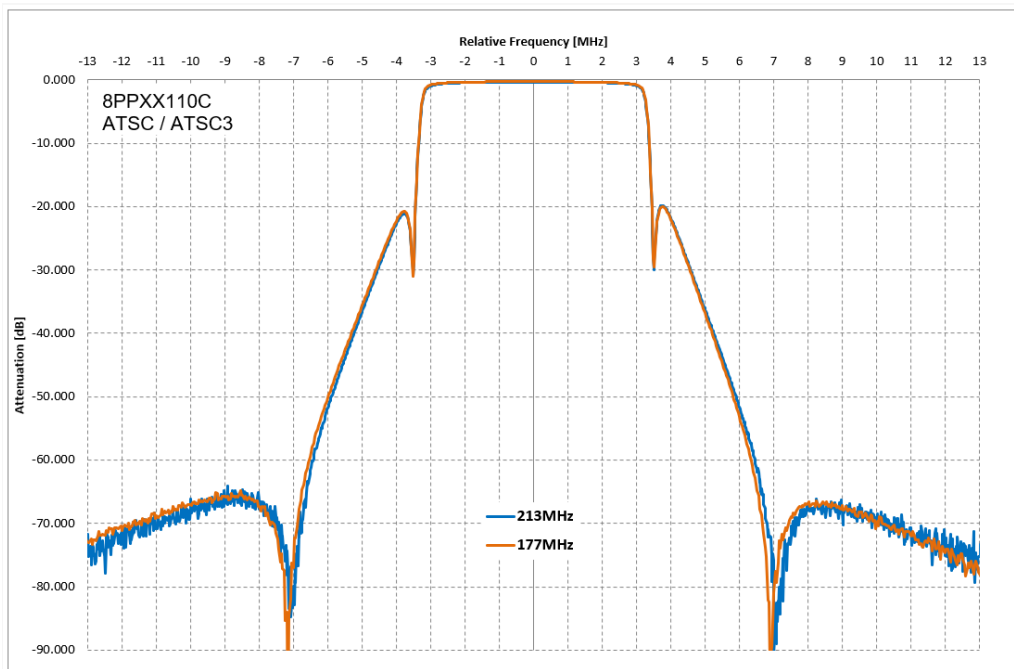
**MECHANICAL SPECIFICATIONS**

<b>Dimensions-WxDxH</b>	mm (in)	249 x 602 x 517 (9.8 x 23.7 x 20.4)
<b>Color</b>		Black
<b>Weight</b>	kg (lb)	40 (88)



**SPECIFICATIONS**

Out-of-Band Emissions Mask		DVB-T & T2 ETSI critical	ISDB-T critical	ATSC and ATSC 3
Channel Bandwidths	MHz	7	6	6
Frequency Range	MHz	170-230		
Input Power Rating	kW	2.9 @ 177.5MHz 2.9 @ 226.5MHz	2.3 @ 173MHz 2.3 @ 219MHz	2.5 @ 177MHz 2.5 @ 213MHz
Insertion Loss at Fc	dB	<0.28 @ 177.5MHz <0.35 @ 226.5MHz	<0.35 @ 173MHz <0.45 @ 219MHz	<0.33 @ 177MHz <0.38 @ 213MHz
Attenuation	dB	<1.35 at fc ±3.33 MHz <1.9 at fc ±3.4 MHz >15 at fc ±3.7 MHz >27.0 at fc ±5.25 MHz >52.0 at fc ±10.5 MHz >58.0 at fc ±11.75 MHz >65dB at 2fc and 3fc	<1.62 at fc ±2.79 MHz >14.0 at fc ±3.15 MHz >31.0 at fc ±4.5 MHz >65.0 at fc ±9.0 MHz >65dB at 2fc and 3fc	<0.75 at fc ±2.69 MHz <0.95 at fc ±2.915 MHz >20.0 at fc ±3.5 MHz >20.0 at fc ±4.0 MHz >40.0 at fc ±6.0 MHz >65.0 at fc ±9.0 MHz >65dB at 2fc and 3fc NOTE 1
VSWR average across carriers		<1.1	<1.1	<1.1
Return Loss Average Across Carriers	dB	26.4	26.4	26.4
Group Delay Variation	ns	<750 at fc ± 3.33 MHz <990 at fc ± 3.4 MHz	<590 at fc ± 2.79 MHz	<290 at fc ±2.69 MHz <350 at fc ±2.915 MHz
Maximum Operating Temperature	°C (°F)	80 (176)		
Ambient Temperature Range	°C (°F)	-5 to 55 (23 to 131)		
Maximum Temperature Rise	°C (°F)	40 (104)		
Freq Drift - Tx Operation	kHz/°C(°F)	<0.3 (0.17)		
Freq Drift - Ambient Temperature	kHz/°C(°F)	<0.3 (0.17)		

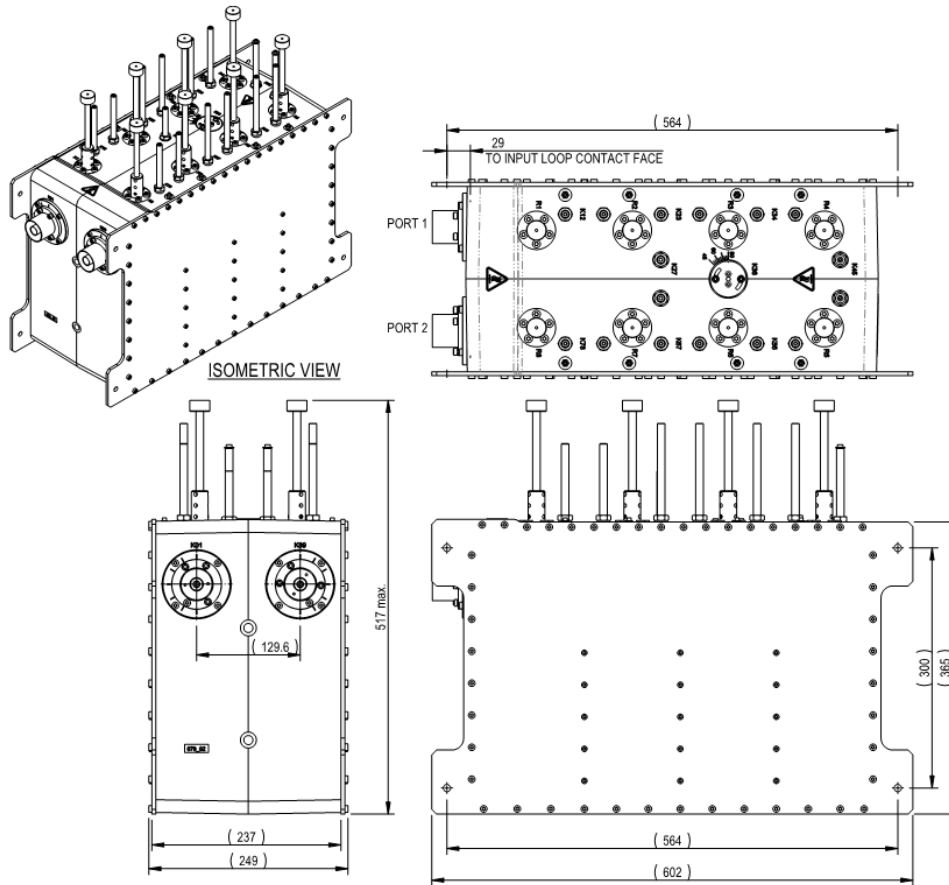


8PPXX110C Filter Response - ATSC / ATSC 3



**8PPXX110C**

Band III (VHF) PeakPower+™ bandpass filter



8PPXX110C Filter Dimensions

External Document Links

Notes

NOTE 1. TX Intermod shoulders 37 dB.