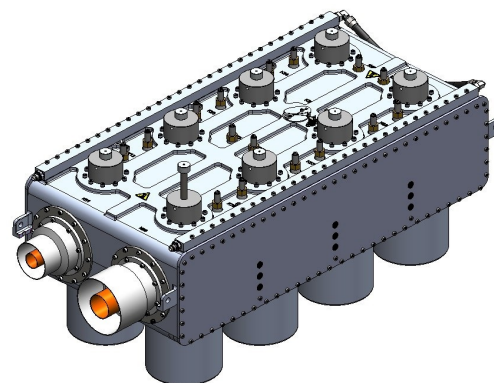




The RFS 8PPXX200C is designed for global filtering applications associated with DTV television transmission. It is an 8-pole liquid cooled filter incorporating two cross couplings to meet all mask requirements.

**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 3.0 applications.
- -5 to 55°C degree ambient temperature operation.
- Liquid cooled.



8PPXX201C Liquid Cooled Filter

**Technical features**

**GENERAL SPECIFICATIONS**

<b>Product Line</b>		Filters
<b>Product Type</b>		Band III (VHF) TV Bandpass Filter
<b>Model</b>		8PPXX201C
<b>Filter type</b>		8 Pole with 2 cross couplings - 200 mm ground plane spacing
<b>Input / Output Connector</b>		3-1/8" EIA Unflanged Female (Standard) or 4-7/8" EIA Unflange Female (Standard) 4-1/2" IEC Unflanged Female (Optional) or 4-1/16" Flanged MYAT (Optional)

**MECHANICAL SPECIFICATIONS**

<b>Dimensions-WxDxH</b>	mm (in)	1037 x 439 x 473 (40.8 x 17.3 x 18.6)
<b>Color</b>		Black
<b>Weight</b>	kg (lb)	82 (180.4)

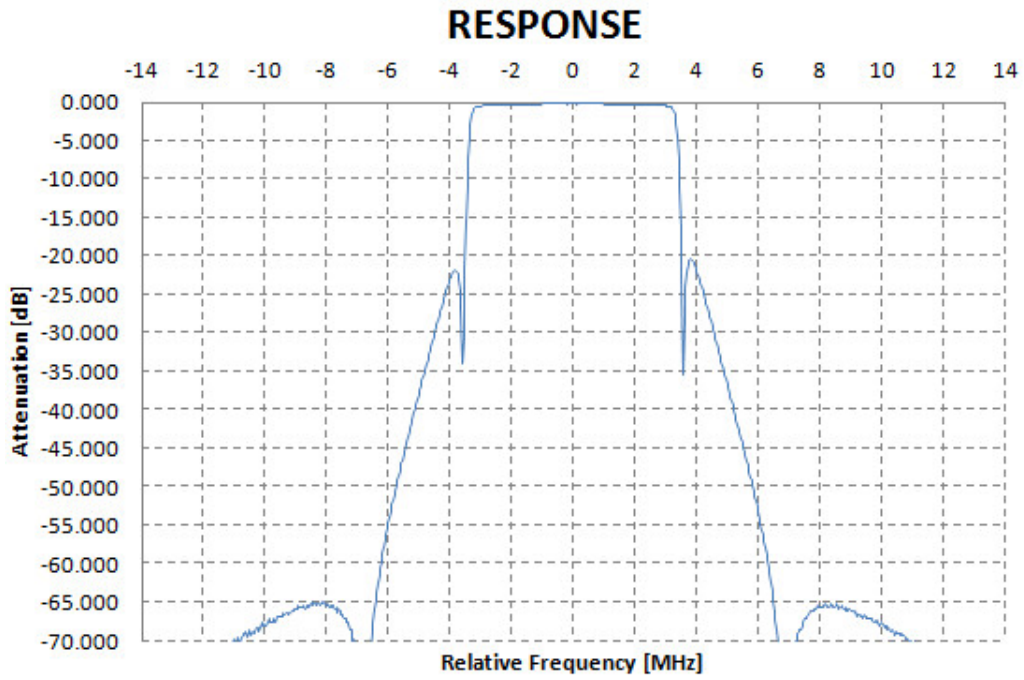
**COOLING**

<b>Cooling</b>		Liquid Cooled
<b>Flow Rate</b>	l/min	3 ≤ rate ≤ 12 (1 ≤ rate ≤ 4 US gal.min)
<b>Max. Propylene Glycol / Water Concentration</b>	%	50

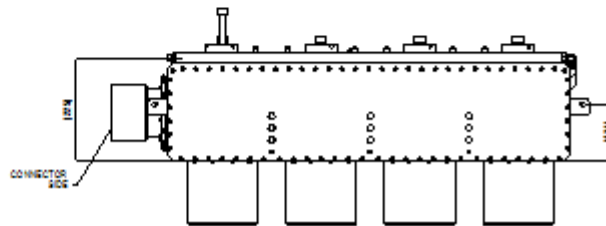
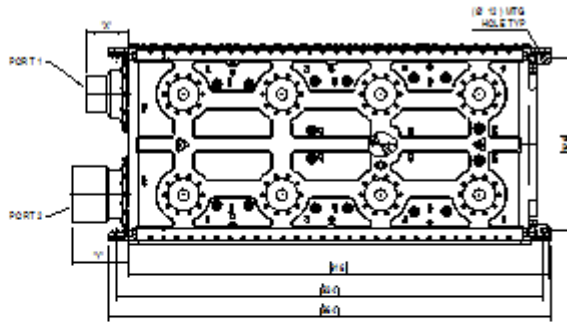
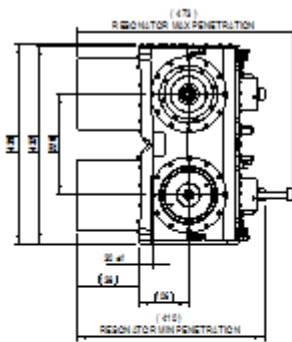


**SPECIFICATIONS**

<b>Out-of-Band Emissions Mask</b>		DVB-T ETSI critical	ISDB-T critical	ATSC1.0 and ATSC 3.0
<b>Channel Bandwidths</b>	MHz	7	6	6
<b>Frequency Range</b>	MHz	170-230		
<b>Input Power Rating</b>	kW	23@ 177.5MHz 23 @ 226.5MHz	20 @ 173MHz 20 @ 219MHz	22 @ 177MHz 22 @ 213MHz
<b>Output Power Rating</b>	kW	22 @ 177.5MHz 22 @ 226.5MHz	19 @ 173MHz 19 @ 219MHz	21 @ 177MHz 21 @ 213MHz
<b>Insertion Loss at Fc</b>	dB	<0.19 @ 177.5MHz <0.19 @ 226.5MHz	<0.23 @ 173MHz <0.23 @ 219MHz	<0.22 @ 177MHz <0.22 @ 213MHz
<b>Attenuation</b>	dB	<0.50 at Fc ±2.85 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	<0.70 at Fc ±2.79 MHz >14.0 at Fc ±3.15 MHz >31.0 at Fc ±4.5 MHz >61.0 at Fc ±9.0 MHz	<0.43 at Fc ±2.69 MHz <0.53 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 NOTE 1
<b>VSWR average across carriers</b>		<1.1	<1.1	<1.1
<b>Return Loss Average Across Carriers</b>	dB	26.4	26.4	26.4
<b>Group Delay Variation</b>	ns	<690 at Fc ± 2.85 MHz	<590 at Fc ± 2.79 MHz	<290 at Fc ±2.69 MHz <350 at Fc ±2.915 MHz
<b>Maximum Operating Temperature</b>	°C (°F)	80 (176)		
<b>Ambient Temperature Range</b>	°C (°F)	-5 to 55 (23 to 131)		
<b>Maximum Temperature Rise</b>	°C (°F)	40 (104)		
<b>Freq Drift - Tx Operation</b>	kHz/°C(°F)	<2 (1.2)		
<b>Freq Drift - Ambient Temperature</b>	kHz/°C(°F)	<2 (1.2)		



8PPXX201C Filter Response



8PPXX201C Filter Dimensions

External Document Links

Notes

NOTE 1. TX Intermod shoulders 37 dB.