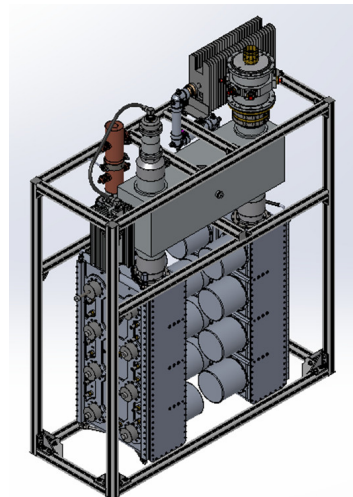




The RFS CA8PPXX201C-M is designed for global filtering applications associated with DTV television transmission. It is an 8-pole water cooled balanced filter incorporating two cross couplings to meet all mask requirements.

**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 (174 – 230 MHz).
- Adjustable bandwidth, available for 6, 7 & 8MHz channels for global applications.
- External, non-invasive coupling adjustment.
- Tunable for ETSI, ISDB-T critical and ATSC1.0/ATSC3.0 applications.
- -5 to 55 degree ambient temperature operation.
- Water cooled.



CA8PPXX201C-M typical balanced filter

**Technical features**

**GENERAL SPECIFICATIONS**

<b>Product Line</b>		Filters
<b>Product Type</b>		Band III (VHF) TV Bandpass Filter
<b>Model</b>		CA8PPXX201C-M
<b>Filter type</b>		8 Pole with 2 cross couplings - 200 mm ground plane spacing
<b>Input / Output Connector</b>		4-1/2" IEC (Standard) / 6-1/8" EIA (optional) / 4-7/8" IEC (optional) / 3-1/8" EIA (optional)

**ELECTRICAL SPECIFICATIONS**

<b>Impedance</b>	Ω	50
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**MECHANICAL SPECIFICATIONS**

<b>Dimensions-WxDxH</b>	mm (in)	1100 x 500 x 1812 (43.3 x 19.7 x 71.3)
<b>Color</b>		Black
<b>Weight</b>	kg (lb)	520 (1146)

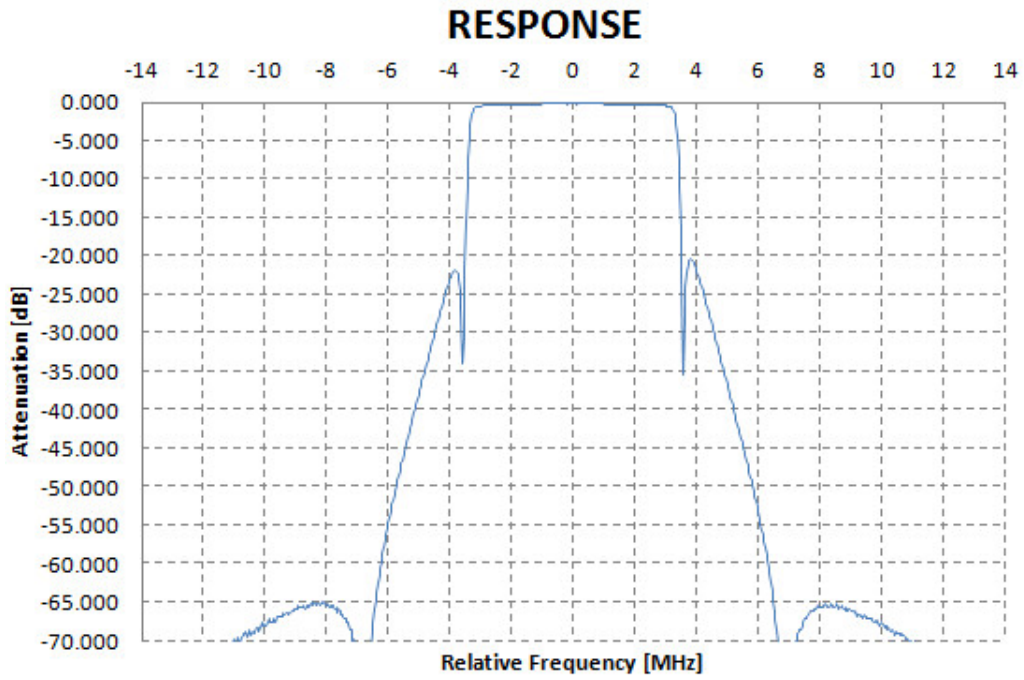
**COOLING**

<b>Cooling</b>		Water 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**

Out-of-Band Emissions Mask		DVB-T ETSI critical	DVB-T ETSI critical	ISDB-T critical	ATSC1.0	ATSC3.0
Channel Bandwidths	MHz	8	7	6	6	6
Input Power Rating	kW	50 @ 178MHz 50 @ 226MHz	46 @ 177.5MHz 46 @ 226.5MHz	42 @ 173MHz 42 @ 219MHz	44 @ 177MHz 40 @ 213MHz	44 @ 177MHz 40 @ 213MHz
Output Power Rating	kW	48 @ 178MHz 48 @ 213MHz	45 @ 177.5MHz 45 @ 226.5MHz	41 @ 173MHz 41 @ 219MHz	43 @ 177MHz 39 @ 213MHz	43 @ 177MHz 39 @ 213MHz
Insertion Loss at Fc	dB	<0.18 @ 174MHz <0.23 @ 226MHz	<0.23 @ 177.5MHz <0.23 @ 226.5MHz	<0.28 @ 173MHz <0.28 @ 219MHz	<0.23 @ 177MHz <0.23 @ 213MHz	<0.23 @ 177MHz <0.23 @ 213MHz
Attenuation	dB	<1.38 at Fc±3.8MHz >15.0 at Fc±4.2MHz >27.0 at Fc±6.0MHz >52.0 at Fc±12.0MHz	<1.78 at Fc±2.85MHz >15.0 at Fc±3.7MHz >27.0 at Fc±5.25MHz >52.0 at Fc±10.5MHz >58.0 at Fc±11.75MHz	<1.48 at Fc±2.79MHz >14.0 at Fc±3.15MHz >31.0 at Fc±4.5MHz >61.0 at Fc±9.0MHz	<0.53 at Fc±2.69MHz >3 at Fc±3.5MHz >12.0 at Fc±4.0MHz >40.0 at Fc ±6.0 MHz >65.0 at Fc±9.0MHz	<0.53 at Fc±2.915MHz >3 at Fc ±3.5 MHz >12.0 at Fc ±4.0 MHz >40.0 at Fc ±6.0 MHz >65.0 at Fc ±9.0 MHz
VSWR average across carriers		<1.1	<1.1	<1.1	<1.1	<1.1
Return Loss Average Across Carriers	dB	26.4	26.4	26.4	26.4	26.4
Group Delay Variation	ns	<590 at Fc ± 3.8 MHz	<690 at Fc ± 2.85 MHz	<590 at Fc ± 2.79 MHz	<290 at Fc ± 2.69 MHz	<350 at Fc ± 2.69 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)	<2 (1.2)				
Freq Drift - Ambient Temperature	kHz/°C(°F)	<2 (1.2)				



8PPXX201C Filter Response

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