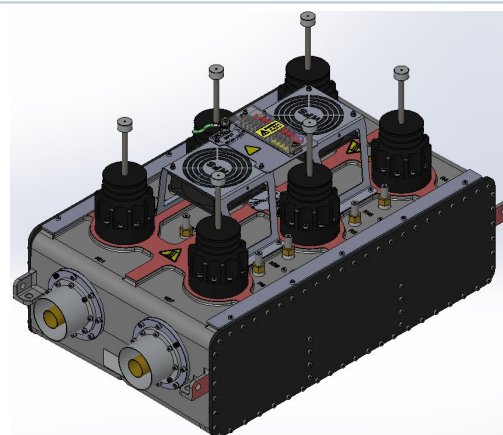




The RFS 6PPXX202E is designed for global filtering applications associated with DTV television transmission. It is a 6-pole fan cooled filter incorporating two cross couplings to meet all mask requirements.

FEATURES / BENEFITS

- Both fan cooled and liquid cooled filters have equal power handling capability.
- Very compact for easy integration into equipment.
- Lowest insertion loss and highest power rating for its size/class.
- Tunable over UHF band (470 – 710 MHz).
- Adjustable bandwidth, available for 6, 7 & 8 MHz channels for global applications.
- External, non-invasive coupling adjustment.
- Tunable for ETSI and ISDB-T critical and non-critical, and ATSC1.0/ ATSC 3 applications.
- 96-264V AC (50/60Hz) Fan cooling kits available in place of liquid cooling.



6PPXX202E Fan Cooled Filter

Technical features

GENERAL SPECIFICATIONS

Product Line		Filters
Product Type		Band IV/V (UHF) TV Bandpass Filter
Model		6PPXX202E
Filter type		6 Pole with 2 cross couplings - 200 mm ground plane spacing - Fan Cooled
Input / Output Connector		3-1/8" EIA Unflanged Female (Standard) or 3-1/8" EIA Flanged Female (Optional) or 3-1/8" MYAT Unflanged Female (Optional) or NAX77D (Optional)

ELECTRICAL SPECIFICATIONS

Impedance	Ω	50
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MECHANICAL SPECIFICATIONS

Dimension-WxDxH	mm (in)	439 x 771 x 432 (17.3 x 30.4 x 17.0) Max with Standard I/O connectors
Weight	kg (lb)	58 (128)

COOLING

Cooling		Forced Air
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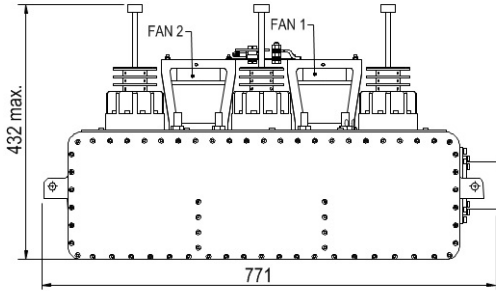
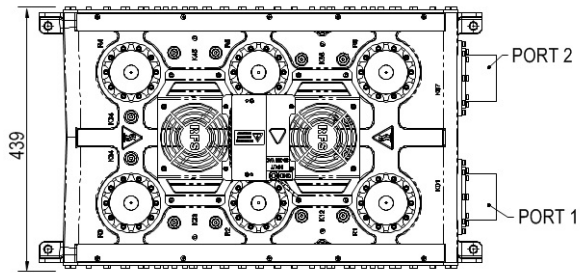
SPECIFICATIONS

Out-of-Band Emissions Mask		DVB-T ETSI non-critical	DVB-T ETSI critical	ISDB-T sub critical	ISDB-T critical	ATSC 1.0/ ATSC 3
Channel Bandwidths	MHz	8	8	6	6	6
Input Power Rating	kW	12.5 @ 474 MHz 10.5 @ 706 MHz	12.6 @ 474 MHz 10.7 @ 706 MHz	11.8 @ 473MHz 8.9 @ 707MHz	11.3 @ 473MHz 8.9 @ 707MHz	13.3/13.3 @ 473MHz 11.0/9.4 @ 707MHz
Insertion Loss at fc	dB	<0.19 @ 474 MHz <0.21 @ 706 MHz	<0.23 @ 474 MHz <0.26 @ 706 MHz	<0.27 @ 473 MHz <0.32 @ 707 MHz	<0.30 @ 473 MHz <0.34 @ 707 MHz	<0.26 @ 473 MHz <0.32 @ 707 MHz
Attenuation	dB	<0.49 ± 3.8 @ fc=474 <0.6 ± 3.8 @ fc=706 >5.0 ± 4.2 MHz >16.0 ± 6.0 MHz >41.0 ± 12.0 MHz	<1.0 ± 3.8 @ fc=474 <1.31 ± 3.8 @ fc=706 >13.0 ± 4.2 MHz >24.0 ± 6.0 MHz >42.0 ± 12.0 MHz	<0.84 ± 2.79 @ fc=473 <1.0 ± 2.79 @ fc=707 >8.0 ± 3.15 MHz >24.0 ± 4.5 MHz >50.0 ± 9.0 MHz	<1.07 ± 2.79 @ fc=473 <1.38 ± 2.79 @ fc=707 >11.0 ± 3.15 MHz >26.0 ± 4.5 MHz >53.0 ± 9.0 MHz	<0.41 ± 2.69 @ fc=473 <0.55 ± 2.69 @ fc=707 >3.0 ± 3.5 MHz >8.0 ± 4.0 MHz >40.0 ± 6.0 MHz >65.0 ± 9.0 MHz Note 1
VSWR average across carriers		≤1.1	≤1.2	≤1.17	≤1.2	≤1.1
Return Loss Average Across Carriers	dB	≥26.4	≥20.8	≥22.1	≥20.8	≥26.4
Group Delay Variation	ns	<295 ± 3.8 MHz	<585 ± 3.8 MHz	<475 ± 2.79 MHz	<585 ± 2.79 MHz	<150 ± 2.69 MHz
Maximum Operating Temperature	°C (°F)	80 (176)				
Ambient Temperature Range	°C (°F)	-5 to 40 (23 to 104)				
Maximum Temperature Rise	°C (°F)	Δ40 (Δ72)				
Freq Drift - Tx Operation	kHz/°C(°F)	<2 (1.2)				
Freq Drift - Ambient Temperature	kHz/°C(°F)	<2 (1.2)				

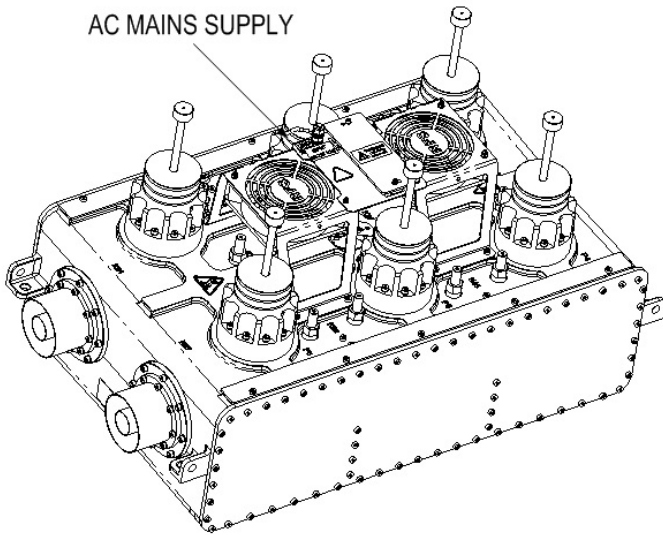


6PPXX202E Series

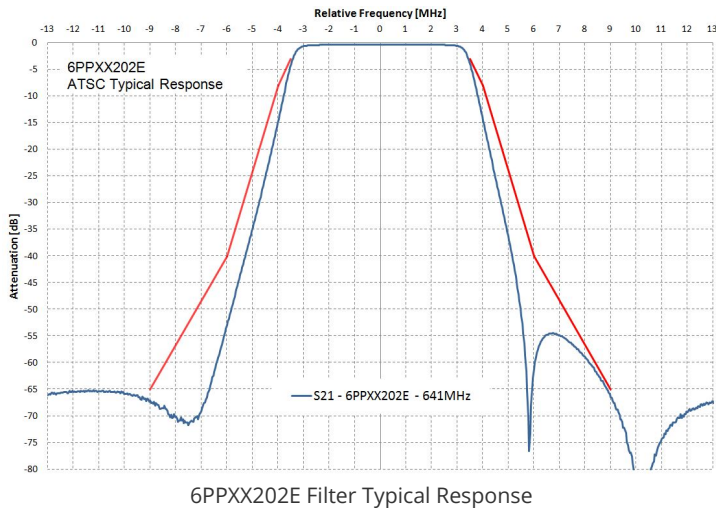
Band IV/V (UHF) PeakPower+™ bandpass filter



6PPXX202E Plan and Side View



6PPXX202E Isometric View



External Document Links

- [ETSI 8MHz Application Guide](#)
- [ATSC Application Guide](#)
- [ISDB-T 6MHz Application Guide](#)

Notes

- Note 1. Tx intermod shoulder at 37dB.