



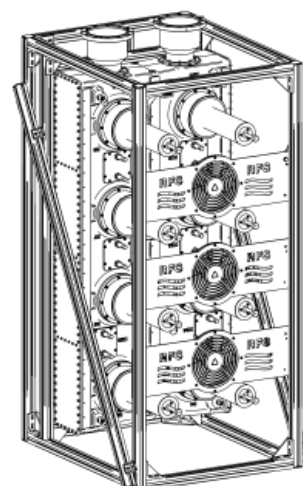
8PPXX322E Series

Band IV/V (UHF) PeakPower+™ 60kW bandpass filter

The RFS 8PPXX322E is designed for global filtering applications associated with DTV television transmission. It is an 8-pole fan-cooled filter incorporating two cross-couplings. The 8-pole filter allows for FCC tightening of emission mask for ATSC 3.

FEATURES / BENEFITS

- Meets FCC Mask requirements plus extra protection for adjacent channels.
- Very compact for easy integration into equipment.
- Lowest insertion loss and highest power rating for its size/class.
- Tunable over UHF band (470 – 638 MHz).
- External coupling adjustment simplifies tuning.
- All data presented based on measured results.



8PPXX322E Framed Forced Air-Cooled Filter Shown

Technical features

GENERAL SPECIFICATIONS

Product Line		Filters
Product Type		Band IV/V (UHF) TV Bandpass Filter
Model		8PPXX322E (Forced Air-Cooled)
Filter type		8 Pole with 2 cross couplings - 325 mm ground plane spacing
Input / Output Connector		6-1/8" EIA Flanged Female (Standard)

ELECTRICAL SPECIFICATIONS

Impedance	Ω	50
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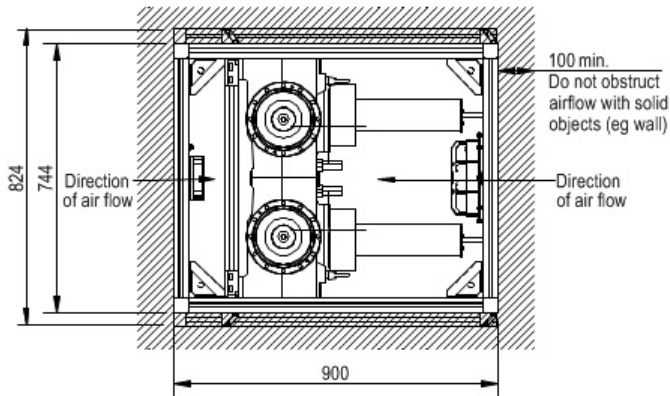
MECHANICAL SPECIFICATIONS

Weight	kg (lb)	260 (573)
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SPECIFICATIONS

Out-of-Band Emissions Mask		DVB-T ETSI critical	ISDB-T critical	ATSC 1.0 Note 1	ATSC 3 Note 1
Channel Bandwidths	MHz	6			
Input Power Rating	kW	45 @ 473 MHz 50 @ 635 MHz	45 @ 473 MHz 50 @ 635 MHz	60 @ 473 MHz Note 2 60 @ 635 MHz Note 2	53 @ 473 MHz Note 2 60 @ 635 MHz Note 2
Insertion Loss at fc	dB	0.3	0.3	0.25 ± 0.02	0.25 ± 0.02
Attenuation	dB	<1.5 at Fc ± 2.85 MHz >14 at Fc ± 3.15 MHz >27 at Fc ± 4.5 MHz >52 at Fc ± 9 MHz	<1.2 at Fc ± 2.79 MHz >14 at Fc ± 3.15 MHz >31 at Fc ± 4.5 MHz >61 at Fc ± 9 MHz	<0.6 at Fc ± 2.69 MHz <0.8 at Fc ± 2.915 MHz MHz >20 at Fc± 3.5 MHz >20 at Fc ± 4 MHz >40 at Fc ± 6 MHz >65 at Fc ± 9 MHz	<0.6 at Fc ± 2.69 MHz <0.8 at Fc ± 2.915 MHz >20 at Fc± 3.5 MHz >20 at Fc ± 4 MHz >40 at Fc ± 6 MHz >65 at Fc ± 9 MHz
VSWR average across carriers		≤1.1			
Return Loss Average Across Carriers	dB	≥26.4			
Group Delay Variation	ns	< 690 at Fc ± 2.85 MHz	< 590 at Fc ± 2.79 MHz	< 290 at Fc ± 2.69 MHz	< 290 at Fc ± 2.69 MHz
Maximum Operating Temperature	°C (°F)	80 (176)			
Ambient Temperature Range	°C (°F)	-5 to 55 (23 to 131) Note 2			
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)			

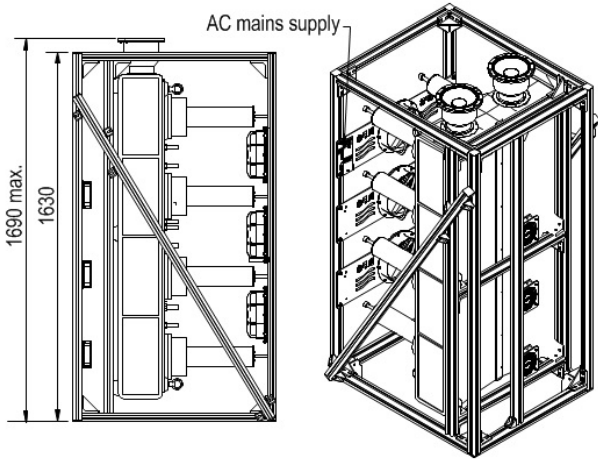


8PPXX322E Plan view

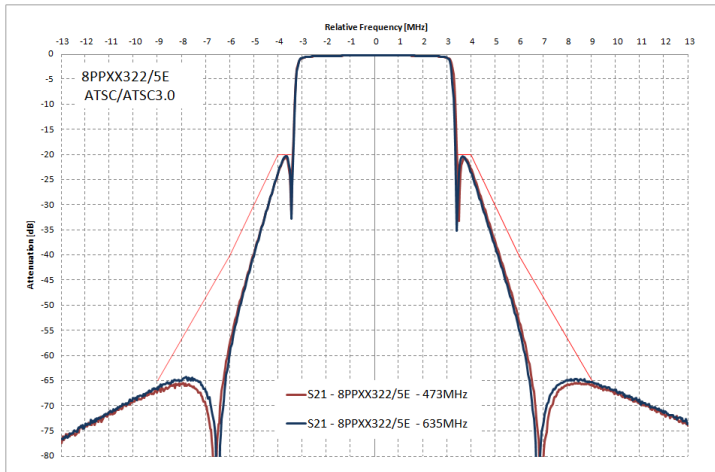


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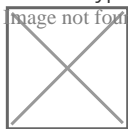


8PPXX322E Side and Iso Views



Graph 1 - 8PPXX322/325E Typical Filter Response

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Graph 2

External Document Links

[ETSI 6MHz Application Guide](#)

[ATSC Application Guide](#)

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

Notes

- Note 1. Other out-of-band emissions masks upon request
- Note 2. Refer to Graph 2 for required environmental conditions (ambient temperature). Linear interpolation can be used to determine power rating at frequencies between 473MHz and 635 MHz.