



The RFS 6PPXX110E is designed for global filtering applications associated with DTV television transmission. It is a 6-pole 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 UHF band (470 – 862 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 ATSC applications.
- -5 to 55 degree ambient temperature operation.



6PPXX110E

Technical features

GENERAL SPECIFICATIONS

Product Line		Filters
Product Type		Band IV/V (UHF) TV Bandpass Filter
Model		6PPXX110E
Filter type		6 Pole with 2 cross couplings - 110 mm ground plane spacing
Input / Output Connector		7-16 DIN female (Standard), 7/8" EIA Flange Female & 1-5/8" EIA Unflanged or Flanged Female (Optional)

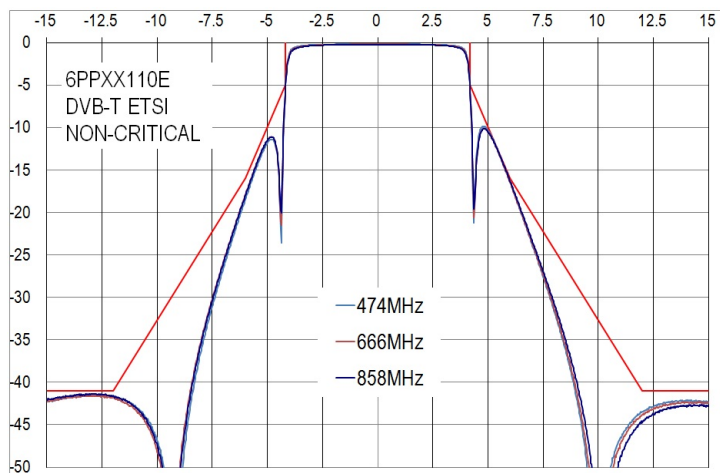
MECHANICAL SPECIFICATIONS

Dimension-WxDxH	mm (in)	249 x 468 x 321 (9.8 x 18.4 x 12.6)
Color		Black
Weight	kg (lb)	19 (41.9)



SPECIFICATIONS

Out-of-Band Emissions Mask		DVB-T&T2 ETSI non-critical	DVB-T ETSI critical	ISDB-T sub critical	ISDB-T critical	ATSC
Channel Bandwidths	MHz	8	8	6	6	6
Input Power Rating	kW	2.9 @ 474 MHz* 2.0 @ 858 MHz*	2.18 @ 474 MHz* 1.68 @ 858 MHz*	1.78 @ 473 MHz 1.38 @ 803 MHz	1.58 @ 473 MHz 1.18 @ 803 MHz	1.9 @ 473 MHz 1.4 @ 803 MHz
Insertion Loss at fc	dB	<0.3 @ 474 MHz <0.37 @ 858 MHz	<0.31 @ 474 MHz <0.43 @ 858 MHz	<0.42 @ 473 MHz <0.55 @ 803 MHz	<0.45 @ 473 MHz <0.57 @ 803 MHz	<0.40 @ 473 MHz <0.55 @ 803 MHz
Attenuation	dB	<1.08 ± 3.8 MHz >5.0 ± 4.2 MHz >16.0 ± 6.0 MHz >41.0 ± 12.0 MHz	<1.75 ± 3.8 MHz >13.0 ± 4.2 MHz >24.0 ± 6.0 MHz >42.0 ± 12.0 MHz	<1.58 ± 2.79 MHz >8.0 ± 3.15 MHz >24.0 ± 4.5 MHz >50.0 ± 9.0 MHz	<2.0 ± 2.79 MHz >11.0 ± 3.15 MHz >26.0 ± 4.5 MHz >53.0 ± 9.0 MHz	>0.89 ± 2.69 MHz >3.0 ± 3.50 MHz >8.0 ± 4.0 MHz >40.0 ± 6.0 MHz >65.0 ± 9.0 MHz
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	<270 ± 3.8 MHz	<495 ± 3.8 MHz	<400 ± 2.79 MHz	<500 ± 2.79 MHz	<150 ± 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)				

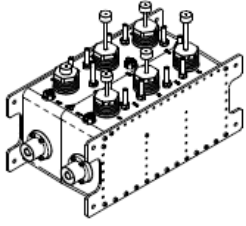


6PPXX110E response



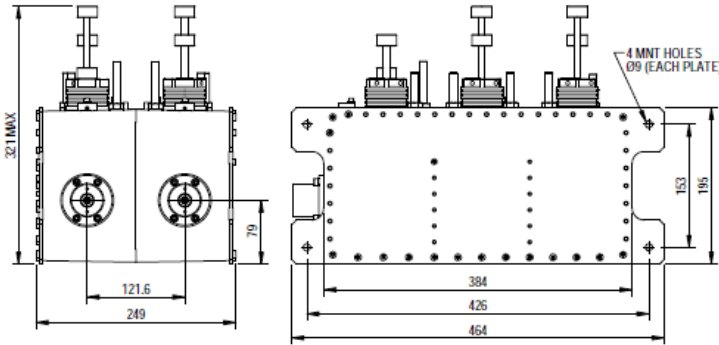
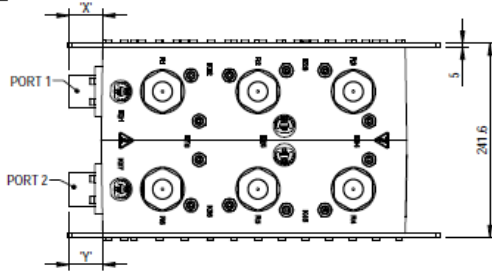
6PPXX110E Series

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



PART No.	PORT 1	PORT 2	DIM 'X'	DIM 'Y'	TUNING STATUS	PACKING INCLUDED
25.70122.001					TUNED	YES
25.70122.101	1-5/8" UF	1-5/8" UF	42.5	42.5	NOT TUNED	NO
25.70122.201					TUNED	YES
25.70122.002					NOT TUNED	NO
25.70122.102	7/8" EIA	7/8" EIA	51.0	51.0	TUNED	YES
25.70122.202					NOT TUNED	NO
25.70122.203	3-1/8" UF	3-1/8" UF	90.7	90.7	NOT TUNED	NO
25.70122.004					TUNED	YES
25.70122.104	1-5/8" EIA	1-5/8" EIA	57.5	57.5	NOT TUNED	YES
25.70122.008					TUNED	YES
25.70122.208	1-5/8" UF	3-1/8" UF	42.5	90.7	NOT TUNED	NO
25.70122.209	3-1/8" UF	1-5/8" UF	90.7	42.5	NOT TUNED	NO

ISOMETRIC VIEW GROUPS 001, 101 & 201 SHOWN



6PPXX110E Sketch

External Document Links

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

Notes