



The RFS 6PPXX160E 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.



6PPXX160E

Technical features

GENERAL SPECIFICATIONS

| | | |
|---------------------------------|--|---|
| Product Line | | Filters |
| Product Type | | Band IV/V (UHF) TV Bandpass Filter |
| Model | | 6PPXX160E |
| Filter type | | 6 Pole with 2 cross couplings - 160 mm ground plane spacing |
| Input / Output Connector | | 1-5/8" EIA Unflanged Female (Standard), 1-5/8" EIA Flanged Female & 3-1/8" EIA Flanged or Unflanged Female (Optional) |

MECHANICAL SPECIFICATIONS

| | | |
|------------------------|---------|--------------------------------------|
| Dimension-WxDxH | mm (in) | 353 x 615 x 340 (13.9 x 24.2 x 13.4) |
| Color | | Black |
| Weight | kg (lb) | 34.8 (76.7) |

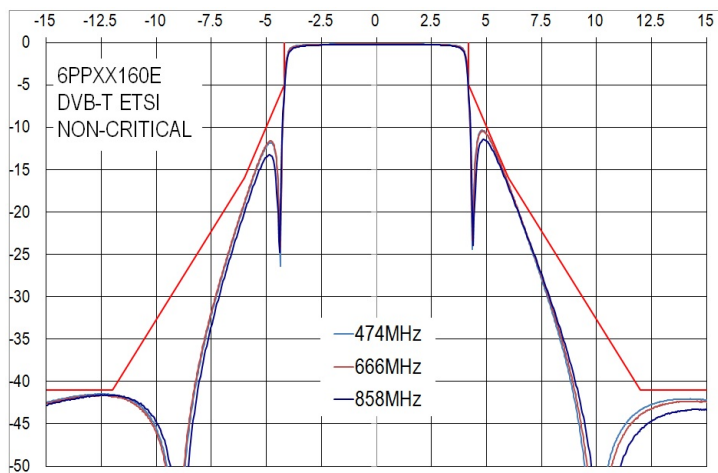
COOLING

| | | |
|----------------|--|-------------|
| Cooling | | Natural air |
|----------------|--|-------------|



SPECIFICATIONS

| Out-of-Band Emissions Mask | | DVB-T ETSI non-critical | DVB-T ETSI critical | ISDB-T sub critical | ISDB-T critical | ATSC 1.0/3.0 |
|-------------------------------------|------------|---|---|---|--|--|
| Channel Bandwidths | MHz | 8 | 8 | 6 | 6 | 6 |
| Input Power Rating, KW | kW | 6.4 @ 474 MHz 4.3 @ 858 MHz | 4.9 @ 474 MHz 3.5 @ 858 MHz | 4.4 @ 473 MHz 3.3 @ 803 MHz | 4.0 @ 473 MHz 3.1 @ 803 MHz | 4.1 @ 473 MHz 3.1 @ 803 MHz |
| Insertion Loss at Fc | dB | <0.22 @ 474 MHz <0.28 @ 858 MHz | <0.27 @ 474 MHz <0.32 @ 858 MHz | <0.33 @ 473 MHz <0.40 @ 803 MHz | <0.35 @ 473 MHz <0.41 @ 803 MHz | <0.33 @ 473 MHz <0.41 @ 803 MHz |
| Attenuation | dB | <0.8 ± 3.8 MHz >5.0 ± 4.2 MHz >16.0 ± 6.0 MHz >41.0 ± 12.0 MHz | <1.28 ± 3.8 MHz >13.0 ± 4.2 MHz >24.0 ± 6.0 MHz >42.0 ± 12.0 MHz | <1.28 ± 2.79 MHz >8.0 ± 3.15 MHz >24.0 ± 4.5 MHz >50.0 ± 9.0 MHz | <1.55 ± 2.79 MHz >11.0 ± 3.15 MHz >26.0 ± 4.5 MHz >53.0 ± 9.0 MHz | >0.65 ± 2.69 MHz >3.0 ± 3.5 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 | <285 ± 3.8 MHz | <555 ± 3.8 MHz | <455 ± 2.79 MHz | <555 ± 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 (72) | | | | |
| Freq Drift - Tx Operation | kHz/°C(°F) | <2 (1.2) | | | | |
| Freq Drift - Ambient Temperature | kHz/°C(°F) | <2 (1.2) | | | | |



6PPXX160E Response

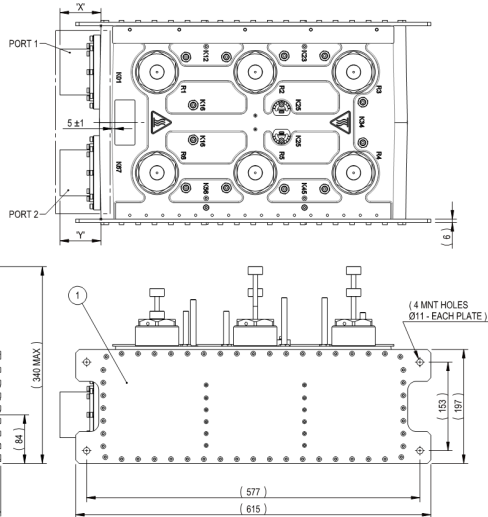


6PPXX160E Series

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

| | | | | | | |
|--------------|-----------|-----------|---------|---------|---------------|------------------|
| 25.70139.109 | 31UF MYAT | 31UF MYAT | 90 | 90 | NOT TUNED | YES |
| 25.70139.108 | 31FL | 31FL | 94 | 94 | TUNED | |
| 25.70139.008 | | | | | | |
| 25.70139.107 | 16FL | 16FL | 105 | 105 | NOT TUNED | |
| 25.70139.007 | | | | | TUNED | |
| 25.70139.206 | 49UF | 31UF | 124.5 | 71 | NOT TUNED | NO |
| 25.70139.205 | 31UF | 49UF | 71 | 124.5 | | |
| 25.70139.204 | 31UF | 31UF | 71 | 71 | | |
| 25.70139.104 | | | | | TUNED | |
| 25.70139.103 | NAX77D | NAX77D | 72.5 | 72.5 | NOT TUNED | YES |
| 25.70139.003 | | | | | TUNED | |
| 25.70139.102 | NAX39D | NAX39D | 96 | 96 | NOT TUNED | |
| 25.70139.002 | | | | | TUNED | |
| 25.70139.201 | 16UF | 16UF | 90 | 90 | NOT TUNED | NO |
| 25.70139.101 | | | | | TUNED | YES |
| 25.70139.001 | | | | | | |
| PART No | PORT 1 | PORT 2 | DIM 'X' | DIM 'Y' | TUNING STATUS | PACKING INCLUDED |

6PPXX160E Variants



6PPXX160E Views

External Document Links

[ETSI 8MHz Application Guide](#)

[ATSC Application Guide](#)

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

Notes