

UHF Bandpass filter, convection / liquid cooled

12.7 / 20 kW rms, 6 Pole, High Power, Low Loss

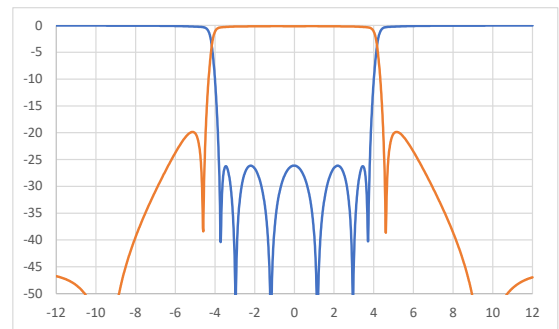
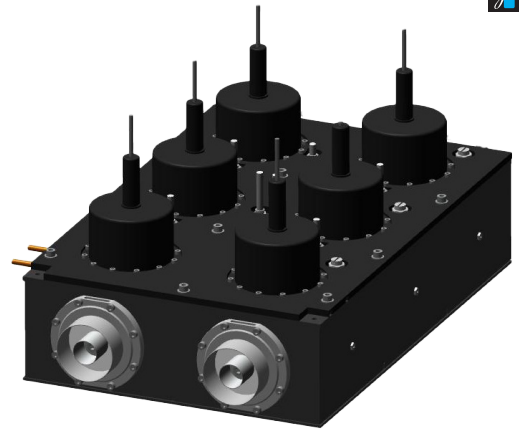
BAND IV-V



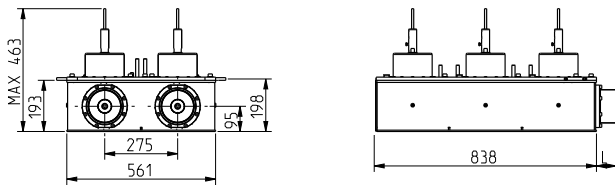
PRODUCT FEATURES

- Convection & Liquid cooled versions
- Retunable
- Compact design
- Low insertion loss
- Temperature compensated

| SPECIFICATIONS | 270 mm Series | |
|----------------------------|---|---|
| | Convection cooled | Liquid cooled |
| FREQUENCY | 470 - 700 MHz | |
| BANDWIDTH | 6 - 8 MHz | |
| STANDARD ORDER | 6 Poles with double cross coupling | |
| OPTIONAL ORDER | 6 Poles with single cross coupling or without | |
| ATV | Spurious suppress | |
| DVB | Non critical mask | |
| ATSC | Stringent mask | |
| ISDB | Non critical mask | |
| IMPEDANCE | 50 Ohm | |
| VSWR | >26 dB (<1.11) | |
| TEMPERATURE STABILITY | < 2 kHz / °C | |
| MAX PRODUCT TEMPERATURE | 70 °C | |
| ENVIROMENTAL CONDITION | -5 to 70 °C IP40 | |
| STANDARD CONNECTION | 3 1/8" unflange | |
| OPTIONAL CONNECTIONS | 4 1/2" unflange, NAX120 unflange | |
| COOLING LIQUID CONNECTION | - | Ø10 mm (other upon request) |
| LIQUID FLOW | - | 10 l/min (2.5 gal liq./min) Cooling capacity >900W |
| COOLING LIQUID TEMPERATURE | - | <=50 °C (<=122 °F) |



| DIMENSIONS AND WEIGHT | |
|-----------------------|------------------------------|
| DIMENSIONS | 898 x 561 x 300-463 mm |
| L x W x H | (35.3 x 22.1 x 11.8-18.2 in) |
| WEIGHT | 46 kg (101 lb) |
| STANDARD FRAME | Stand alone |
| OPTIONAL FRAME | Custom frame |
| COLOUR | Frosted black |



ARTICLE: BPF46C27E-2N33

- BPF** = Filter type
4 = Frequency band
6 = Number of poles
C = Cavity based
27 = Cavity size
E = Version
2 = Number of cross coupling
 0 = without, 1 = single, 2 = double
N = Coating and cooling
 W = blackpainted, silver plated, liquid cooled
 N = blackpainted, silver plated, convection cooled
3 = Input connection
 3 = 3 1/8" unflange, 4 = 4 1/2" unflange,
 2 = NAX120 unflange
3 = Output connection
 3 1/8" unflange, 4 = 4 1/2" unflange,
 2 = NAX120 unflange

| TYPICAL DATA* | 8 MHz DVB-T2 | | 6 MHz ISDB-T | | 6 MHz ATSC | |
|---|------------------------|-----------------|------------------------|-----------------|------------------------|-----------------|
| ARTICLE NO | BPF46C27E-2Nxx | | BPF46C27E-2Nxx | | BPF46C27E-2Nxx | |
| INSERTION LOSS | 470 MHz | 700 MHz | 470 MHz | 700 MHz | 470 MHz | 700 MHz |
| Avg. signal bandwidth | <0.17 dB | <0.20 dB | <0.18 dB | <0.21 dB | <0.20 dB | <0.24 dB |
| Centre frequency | <0.12 dB | <0.15 dB | <0.15 dB | <0.18 dB | <0.18 dB | <0.22 dB |
| Signal band edge | ± 3.88 MHz | <0.42 dB | ± 2.79 MHz | <0.12 dB | ± 2.69 MHz | <0.07 dB |
| Rejection Δ-f0 | ± 4.2 MHz | >4 dB | ± 3.15 MHz | - | ± 3.5 MHz | - |
| | | typical >4.5 dB | | typical >0.2 dB | | typical >0.6 dB |
| Rejection Δ-f0 | ± 6.0 MHz | >16 dB | ± 4.5 MHz | >17 dB | ± 6.0 MHz | >29 dB |
| | | typical >22 dB | | typical >21 dB | | typical >45 dB |
| Rejection Δ-f0 | ± 12.0 MHz | >41 dB | ± 9.0 MHz | >47 dB | ± 9.0 MHz | >63 dB |
| | | typical >45 dB | | typical >52 dB | | typical >69 dB |
| GROUP DELAY | <350 ns | | <130 ns | | <80 ns | |
| MAX INPUT POWER RATING, LIQUID COOLING** | 20 kW | 20 kW | 20 kW | 20 kW | 20 kW | 20 kW |
| | @ 13 dB (crest factor) | | @ 13 dB (crest factor) | | @ 11 dB (crest factor) | |
| MAX INPUT POWER RATING, CONVECTION COOLING*** | 15.4 kW | 12.7 kW | 14.7 kW | 12.1 kW | 13.1 kW | 10.8 kW |
| | @ 13 dB (crest factor) | | @ 13 dB (crest factor) | | 11 dB (crest factor) | |
| TEMPERATURE RISE | <3.3 °C/kW | <4.0 °C/kW | <3.4 °C/kW | <4.1 °C/kW | <3.8 °C/kW | <4.6 °C/kW |
| MASK COMPLIANT | Non critical mask | | Non critical mask | | Stringent mask | |

* Data in table is typical/ indicative data. To fulfil mask, transmitter shoulder level must be >36.2 dB. The filter can be tuned for other specifications or bandwidth. Please contact us for a designed specification.
 ** Max input power with above cooling liquid flow and temperature. Change in the liquid flow and temperature can also change the actual power rating.
 *** Max input power at <50 °C temp. rise and <20 °C ambient temperature. The unit must be positioned so that there are no obstructions to free air flow. Data are subjected to change without prior notice.