

## Filter

3 to 110 GHz, High Rejection and low VSWR

### DESCRIPTION

Anteral's filters are available in **different bands** covering a frequency range between 3 GHz and 110 GHz. COTSs and custom designs are available. All filters are designed for **minimum footprint and low mass**. Optimized assemblies for custom topologies.

RF and thermo-mechanical design, material and finish selection targeted at critical parameter optimization or best compromise performance. Material is selected for optimum thermal stability.

Filters are **small and compact by design**. Low insertion losses and cutoff rejections are obtained depending on the structure. Most of the components are turning less. Can be integrated as part of antennas feed network. Contact Anteral for dimensions and other specifications due to the wide range of waveguide sizes and frequency ranges.

Low-pass, band-pass and high-pass filters are available. Narrow-band and wide-band performance.

### APPLICATIONS

Filters are especially useful when not only high rejection and low insertion loss but also compact size is required. Therefore, these filters are widely used in space, radar, communications and SATCOM applications, among others.

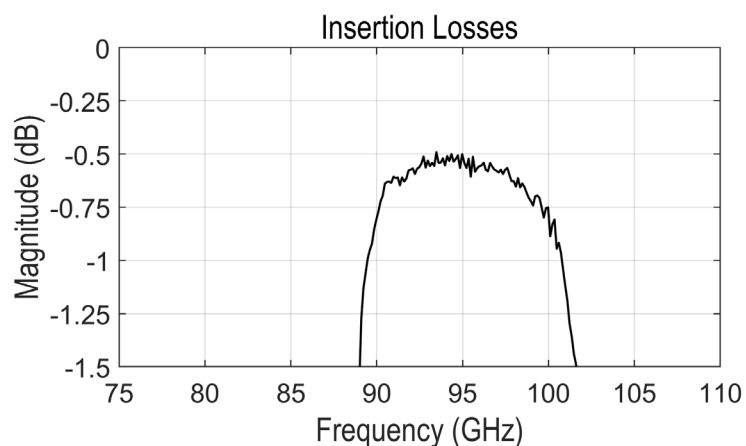
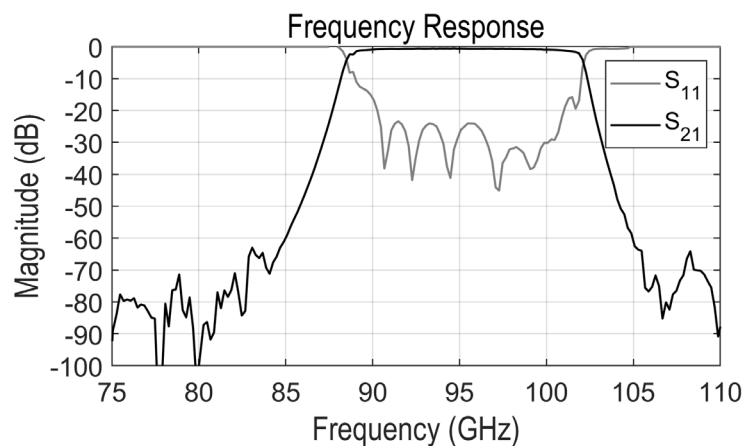
Anteral also offers their **Diplexers** (DPX) from 3 GHz to 110 GHz.

## ELECTRICAL SPECIFICATIONS

Model	Pass band (GHz)	Return Loss (dB)	Insertion Loss (dB)	Rejected Band (GHz)	Rejection (dB)	Interface Ports
LPF-SAT-C-01	3.4 - 4.2	25	0.05	5.35 - 14.5	60	WR-229
LPF-SAT-X-01	7.25 - 7.75	25	0.6	7.9 - 8.4	100	WR-112
LPF-SAT-KU-01	10.7 - 12.75	25	0.1	13.75 - 40	75	WR-75
LPF-SAT-KU-02	10.7 - 12.75	25	0.15	13.75 - 15	75	WR-75
LPF-SAT-K-01	17 - 21	25	0.15	25.8 - 50	75	WR-51
BPF-SAT-X-01	7.25 - 7.75	25	0.2	DC - 7   7.9 - 8.4	40   35	WR-112
BPF-SAT-X-02	7.25 - 7.75	20	0.55	DC - 7   7.9 - 10.2	20   70	WR-112
BPF-SAT-X-08	7.9 - 8.4	23	0.55	DC - 7.75   9 - 10.2	80   60	WR-112
BPF-SAT-KU-01	10.7 - 12.7	25	0.15	DC - 9   13.75 - 15	20   75	WR-75
BPF-SAT-K-01	20.2 - 21.2	20	0.5	DC - 18.75   23 - 40	60   55	WR-42 & 2.92mm
BPF-SAT-KA-01	26.5 - 32.5	20	0.3	DC - 22.5   35 - 50	50   50	WR-28
BPF-SAT-KA-02	29 - 31	20	0.5	DC - 25.5   31.75 - 33	60   25	WR-28 2.92mm
BPF-SAT-Q-01	37.5 - 42.5	20	0.5	33 - 35   45 - 50	60   75	WR-22
BPF-5G-V-01	58.5 - 59.5	18	0.5	DC - 56.5   61 - 70	60   60	WR-15
BPF-5G-V-02	61 - 62	18	0.5	DC - 59.5   65 - 70	60   60	WR-15
BPF-5G-E-01	71 - 76	18	1	DC - 65   81 - 86	60   60	WR-12
BPF-5G-E-02	81 - 86	18	1	DC - 76   85 - 90	60   60	WR-12
BPF-WR10-01	90 - 100	18	0.8	75 - 85   105 - 110	60   60	WR-10
HPF-SAT-X-01	7.9 - 8.4	25	0.6	DC - 7.75	100	WR-112

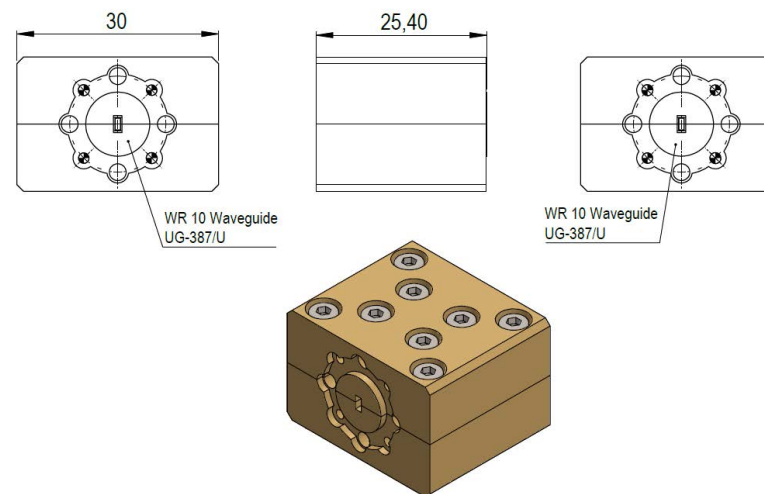
This table contains only a few filter examples. All data are typical values. Contact us for other filters and more information.

### TYPICAL PERFORMANCE



### MECHANICAL OUTLINE

<b>Flange</b>	Standard UG-xxx/U
<b>Operating temperature</b>	-40°C to +85°C
<b>External color</b>	Aluminum. Gold plated in some cases.
<b>Material</b>	Aluminum.
<b>Fabrication</b>	In two or three pieces.



### Additional notes

All data are simulated. Mechanical outline and typical performance data correspond to a measurement sample of BPF-WR10-01 model. Actual values could vary slightly. The return loss performance of all items is checked before delivery.

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