

Широкополосные фильтры СВЧ для сетей сотовой связи



Официальный поставщик «Spinner-Group»

<http://www.tt-telecom.ru>

Отдел продаж: market@tt-telecom.ru

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Filters



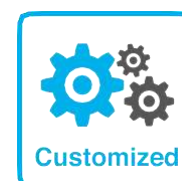
Since the demand for frequency bands in telecommunication keeps growing continuously the transmission and reception frequencies are getting closer all the time, causing more and more undesirable mutual interference and noise. This reduces the system power and finally results in lower throughput. It is most critical when bands which are close together are transmitted and received by the same transmission line.

Maximize bandwidth usage

The filters have been designed for the lowest possible attenuation in the pass-band. This helps to minimise the inevitable loss of useful power (0.5 dB of attenuation are already equivalent to more than a 10% power loss). In addition our filters stand out for high stop-band attenuation and steep filter edges.

We customize most of our filters before dispatching them. The products for which this service is available are designated in our catalogue by the logo shown on the right. The technical data given for the VSWR, frequency range, isolation and loss of these products depend on the individual tuning. Before you place your order, we send you

a binding quotation indicating the specified technical data and measurement curves. To request a quotation for customized filters for your applications, please contact us at info@spinner-group.com.



SPINNER delivers a broad variety of band-pass, band-stop and low-pass filters to ensure suitable solutions.

Band-Pass Filters

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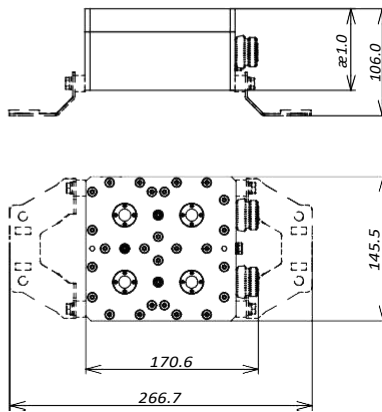


TETRA

Part Number	BN 616431	BN 616430
Pass-band	380 – 385 MHz	390 – 395 MHz
Pass-band loss	≤ 0.5 dB	
Stop-band	390 - 395 MHz 890 - 960 MHz	380 - 385 MHz 890 - 960 MHz
Stop-band loss	≥ 30 dB @ 390 – 395MHz ≥ 50 dB @ 890 – 960MHz	≥ 30 dB @ 380 – 385MHz ≥ 50 dB @ 890 – 960MHz
Passive intermodulation (IM3) @ 2 x 20 W	≤ -150 dBc; typ. ≤ -160 dBc	
VSWR	≤ 1.25	
Power rating	≤ 200 W	
Connectors	7-16 female	
Temperature range	-5 °C ... +60 °C	
Degree of protection (mated)	IP 54	
Weight	~ 1.7 kg	
Mounting brackets	BN B07787	



BN 616431 / BN 616430



Band-Pass Filters

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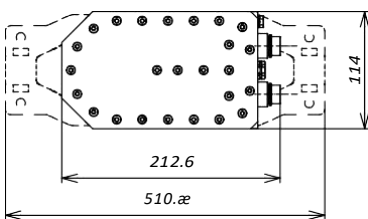
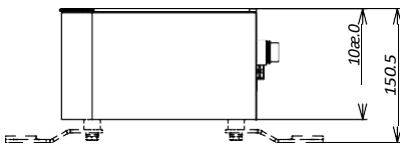


LTE800 | GSM1800 | UMTS

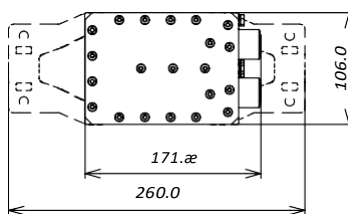
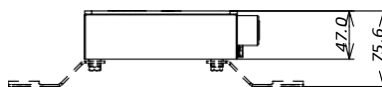
Part Number	BN 616499	BN 616396	BN 616398
Pass-band	Tunable within 790 - 857 MHz	Tunable within 1710 - 1880 MHz	Tunable within 1920 - 2170 MHz
Pass-band loss	Dependent on tuning		
Stop-band	Tunable and dependent on pass-band		
Stop-band loss	Dependent on tuning		
Passive intermodulation (IM3) @ 2 x 20 W	≤ -150 dBc; typ. ≤ -160 dBc		
VSWR	Dependent on tuning		
Power rating	≤ 100 W		
Connectors	7-16 female		
Temperature range	-40 °C ... +65 °C		
Degree of protection (mated)	IP 65		
Weight	~ 3.5 kg	~ 1.2 kg	~ 1.7 kg
Mounting brackets	BN B16603	BN B17365	



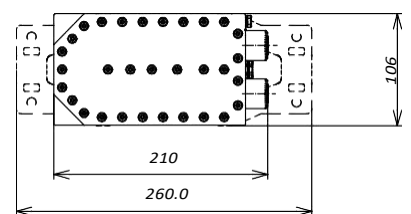
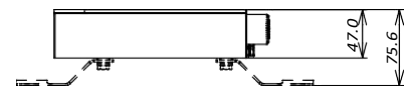
BN 616499



BN 616396



BN 616398



Band-Stop Filters

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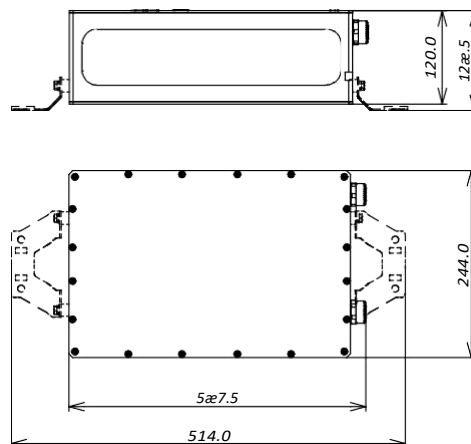


GSM-R

Part Number	BN 610007	BN 610015	BN 610017
Stop-band	873.1 – 880.1 MHz 918.1 – 925.1 MHz		
Stop-band loss	≥ 44 dB		
Pass-band	791.0 - 821.0 MHz 832.0 - 862.0 MHz 880.9 - 915.0 MHz 925.9 - 960.0 MHz 1710 - 1880 MHz 1920 - 2170 MHz 2500 - 2690 MHz		
Pass-band loss	≤ 1.0 dB @ 791.0 - 821.0 MHz / 832.0 - 862.0 MHz ≤ 8.0 dB @ 880.9 - 883.5 MHz ≤ 1.0 dB @ 883.5 - 914.0 MHz ≤ 1.8 dB @ 914.0 - 915.0 MHz ≤ 8.0 dB @ 925.9 - 928.5 MHz ≤ 1.0 dB @ 928.5 - 960.0 MHz ≤ 1.0 dB @ 1710 - 1880 MHz ≤ 1.0 dB @ 1920 - 2170 MHz ≤ 1.0 dB @ 2500 - 2690 MHz		
Passive intermodulation (IM3) @ 2 x 20 W	≤ -150 dBc; typ. ≤ -160 dBc		
VSWR	≤ 1.29		
Power rating	≤ 200 W		
Connectors	7-16 female	4.3-10 female	N female
Temperature range	-25 °C ... +85 °C		
Degree of protection (mated)	IP 65		
Weight	~ 15 kg		
Mounting brackets	BN B07787		



BN 610007



Band-Stop Filters

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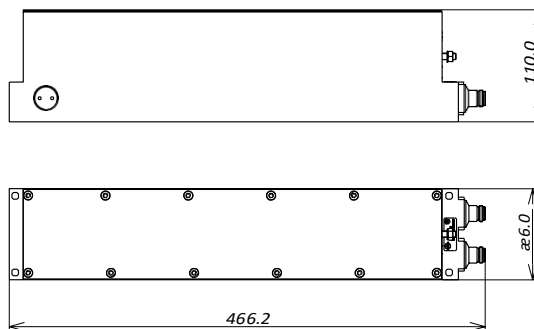


GSM-R

Part Number	BN 616314	BN 616313
Stop-band	876 - 880 MHz 921 - 925 MHz	
Stop-band loss	≥ 50 dB	
Pass-band	890 – 915 MHz 935 – 960 MHz 1710 – 1880 MHz 1920 – 2170 MHz	
Pass-band loss	≤ 0.7 dB @ 890 – 915 MHz ≤ 0.4 dB @ 935 – 960 MHz ≤ 0.2 dB @ 1710 – 1880 MHz ≤ 0.2 dB @ 1920 – 2170 MHz	
Passive intermodulation (IM3) @ 2 x 20 W	≤ -150 dBc; typ. ≤ -160 dBc	
VSWR	≤ 1.29	
Power rating	≤ 200 W	
Connectors	7-16 female	N female
Temperature range	-40 °C ... +85 °C	
Degree of protection (mated)	IP 65	
Weight	~ 6.5 kg	
Mounting brackets	N/A	



BN 616313



Band-Stop Filters

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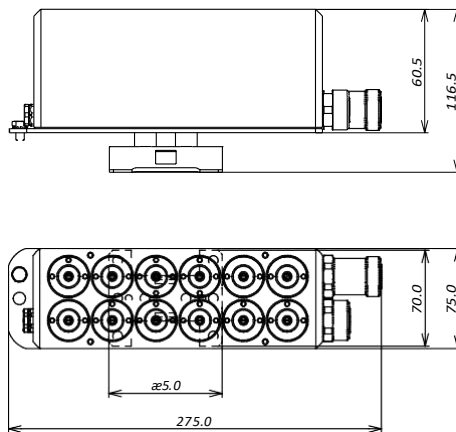


GSM900 | UMTS

Part Number	BN 610003	BN 570552	BN 570554
Stop-band	Tunable within 900 MHz band		Tunable within 1800 MHz band
Stop-band loss	Dependent on tuning		
Pass-band	Tunable and dependent on stop-band		
Pass-band loss	Dependent on tuning		
Passive intermodulation (IM3) @ 2 x 2 W (BN 610003) @ 2 x 20 W (BN 570552 / BN 570554)	≤ -130 dBc	≤ -150 dBc; typ. ≤ -155 dBc	
VSWR	Dependent on tuning		
Power rating	≤ 10 W	≤ 150 W	≤ 500 W
Connectors	7-16 female		
Temperature range	-25 °C ... +55 °C	-10 °C ... +60 °C	
Degree of protection (mated)	IP 65		
Weight	~ 3.6 kg	~ 5 kg	
Mounting brackets	Included	BN B16603	



BN 610003



Low-Pass Filters

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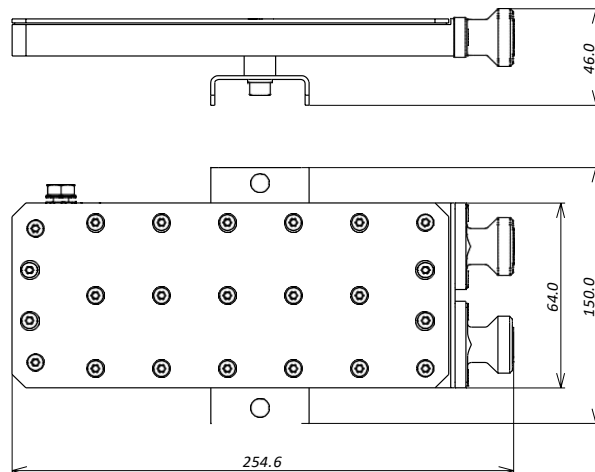


≤ 500 MHz | ≤ 614 MHz

Part Number	BN 616331	BN 616439
Pass-band	0 - 500 MHz	0 - 614 MHz
Pass-band loss	≤ 0.20 dB	≤ 0.20 dB
Stop-band	800 - 2200 MHz	800 - 2170 MHz
Stop-band loss	≥ 45 dB @ 800 - 876 MHz ≥ 55 dB @ 876 - 2200 MHz	≥ 30 dB @ 800 - 860 MHz ≥ 40 dB @ 860 - 960 MHz ≥ 70 dB @ 1710 - 2170 MHz
Passive intermodulation (IM3) @ 2 x 20 W	≤ -150 dBc; typ. ≤ -160 dBc	
VSWR	≤ 1.25 @ 0 - 380 MHz ≤ 1.14 @ 380 - 500 MHz	≤ 1.40 @ 0 - 380 MHz ≤ 1.15 @ 380 - 614 MHz
Power rating	≤ 150 W	
Connectors	7-16 female	
Temperature range	-40 °C ... +65 °C	
Degree of protection (mated)	IP 65	
Weight	~ 1.4 kg	
Mounting brackets	Included	



BN 616331 / 616439



Uplink / Downlink Filters

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SPINNER offers uplink/downlink (UL/DL) filters, which consist of a parallel circuit each with one band-pass filter for the reception and transmission signal. In comparison to a single band-pass filter, UL/DL filter offer the advantage of also eliminating signals which are between the transmitted and received band. Furthermore, the lower bandwidth means that a significantly larger edge steepness is possible which in turn leads to higher isolation values.

As with all SPINNER filters, the uplink/downlink filters are designed for minimum insertion loss and highest edge steepness. Furthermore, the filters are adjustable in the complete frequency band (LTE700/LTE800, CDMA850/GSM900, GSM1800/UMTS and LTE2600) with a bandwidth of ~ 5 MHz to 20 MHz and can therefore be individually tuned to your requirements.

Depending on requirements, there is a selection of 4 and 6 cavity filter types available. All UL/DL filters are suitable for outdoor installation. Their compact design means that they have a low weight and wind load which are key advantages when being used e.g. on a mobile site.

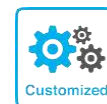
Please let us know your requirements so we can suggest the best possible solution.



LTE700 | LTE800 | GSM850 | GSM900

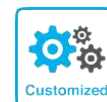
Part Number	BN 570569	BN 610011	BN 570568	BN 570668
Version	Single	Double	Single	Double
Cavities	4	4	6	6
Frequency range	694 - 960 MHz			
Insertion loss	Dependent on tuning			
Isolation	Dependent on tuning			
Passive intermodulation (IM3) @ 2 x 20 W	≤ -150 dBc; typ. ≤ -160 dBc			
VSWR	Dependent on tuning			
Power rating	≤ 100 W			
Connectors	7-16 female			
Temperature range	-25 °C ... +65 °C			
Degree of protection (mated)	IP 65			
Weight	~ 4.3 kg	~ 8.7 kg	~ 6.7 kg	~ 12.0 kg
Mounting brackets	BN B16603	Included	BN B16603	Included

Uplink / Downlink Filters

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GSM1800 | UMTS2100

Part Number	BN 570571	BN 610013	BN 570572	BN 570672
Version	Single	Double	Single	Double
Cavities	4	4	6	6
Frequency range	1710 - 2170 MHz			
Insertion loss	Dependent on tuning			
Isolation	Dependent on tuning			
Passive intermodulation (IM3) @ 2 x 20 W	≤ -150 dBc; typ. ≤ -160 dBc			
VSWR	Dependent on tuning			
Power rating	≤ 100 W			
Connection	7-16 female			
Temperature range	-25 °C ... +65 °C			
Degree of protection (mated)	IP 65			
Weight	~ 3.0 kg	~ 6.4 kg	~ 5.0 kg	~ 10.4 kg
Mast or wall mounting brackets	BN B16603	Included	BN B16603	Included



LTE2600

Part Number	BN 570573	BN 610014	BN 570574	BN 570674
Version	Single	Double	Single	Double
Cavities	4	4	6	6
Frequency range	2500 - 2690 MHz			
Insertion loss	Dependent on tuning			
Isolation	Dependent on tuning			
Passive intermodulation (IM3) @ 2 x 20 W	≤ -150 dBc; typ. ≤ -160 dBc			
VSWR	Dependent on tuning			
Power rating	≤ 100 W			
Connection	7-16 female			
Temperature range	-25 °C ... +65 °C			
Degree of protection (mated)	IP 65			
Weight	~ 2.9 kg	~ 6.4 kg	~ 5.0 kg	~ 10.0 kg
Mast or wall mounting brackets	BN B16603	Included	BN B16603	Included