

2015 RF & MICROWAVE

RF Custom design & Manufacture



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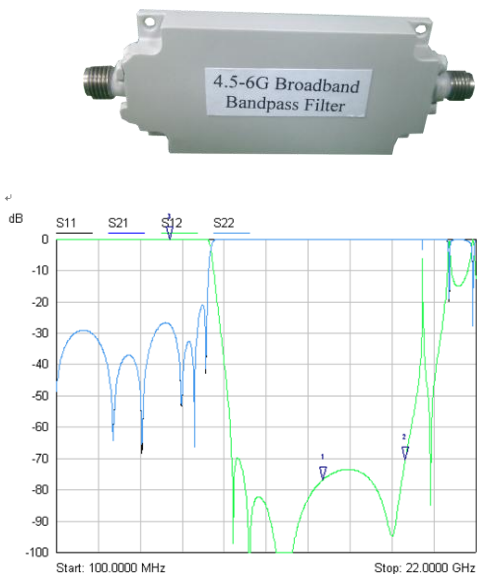
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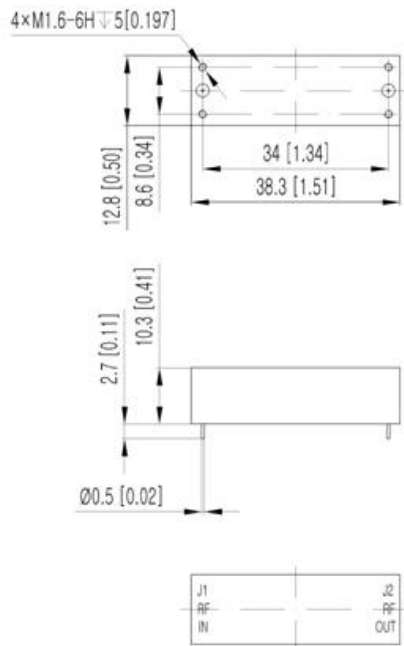
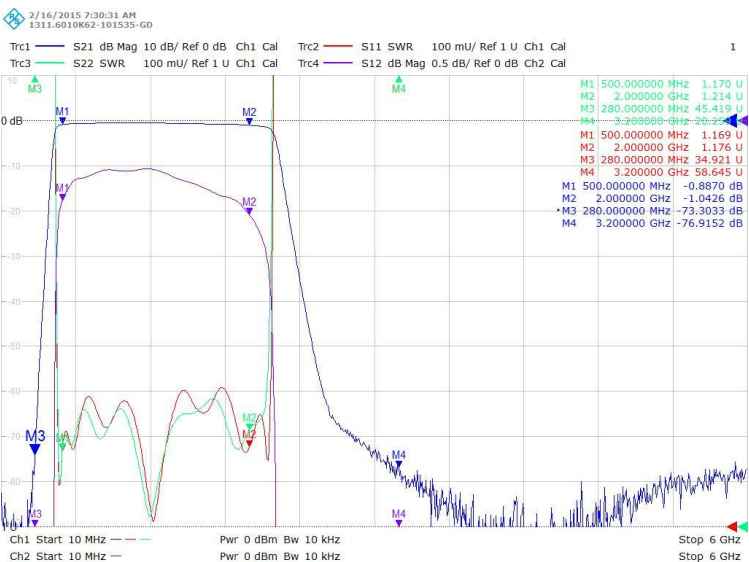
4.5G –6G LC BandPass Filter

Pass Band Frequency Range	4.5~6.0GHz
Pass Band Insertion Loss	≤ 1.0(dB)
Stop Band Frequency Range	DC~3.6GHz, 6.7~15GHz
Stop Band Loss	≥ 70 (dB)
VSWR	≤ 1.4
Package Type	SMA female*2
Impedance	50±1Ω @ I/O
Size, connector	Figure 1
Mounting Holes	Figure 1
Power Handling	1W
Operating Temperatures	-55~+85℃
Flatness	less than +/- 1 dB



0.5G –2G LC BandPass Filter

Pass band	500 MHz to 2 GHz
VSWR @ pass band	1.4:1 max
Insertion Loss @pass band	1.2 dB max
Rejection	>65 dBc @ DC-280 MHz & 3.2-6 GHz
Ripple in band	1.0 dB peak to peak
Impedance	50Ω
Operating Temperature	-55~+85℃



Aerospace and Defense Filters

Suspended Substrate Stripline Filters



High Pass Filter Series

Model	3dB Cut off(GHz)	1dB Pass Band(GHz)	Insertion Loss(dB)	VSWR	Stop Band Rejection (dB@GHz)	Power Handling(W)	Connectors	Size LxWxH(mm)
TA0138-HS	1	1.1 ~ 4	≤1.0	≤2.0	≥45@DC ~ 0.85 (Type50)	15	SMA-F	71x40x10
TA0139-HS	2	2.2 ~ 12	≤1.0	≤2.0	≥45@DC ~ 1.7 (Type50)	15	SMA-F	38x34x10
TA0140-HS	3	3.3 ~ 12	≤1.0	≤2.0	≥45@DC ~ 2.55 (Type50)	15	SMA-F	35x31x10
TA0141-HS	4	4.4 ~ 12	≤1.0	≤2.0	≥45@DC ~ 3.4 (Type50)	15	SMA-F	34x25x10
TS-A0107-HS	5	5.5 ~ 16	≤1.0	≤2.0	≥45@DC ~ 4.25 (Type50)	15	SMA-F	26x25x10
TA0072-HS	6	6.6 ~ 18	≤1.0	≤2.0	≥45@DC ~ 5.1 (Type50)	15	SMA-F	29x28x10
TA0142-HS	7	7.7 ~ 18	≤1.0	≤2.0	≥45@DC ~ 5.95 (Type50)	15	SMA-F	29x23x10
TA0143-HS	8	8.8 ~ 18	≤1.0	≤2.0	≥45@DC ~ 6.8 (Type50)	15	SMA-F	23x25x10
TA0144-HS	9	9.9 ~ 18	≤1.0	≤2.0	≥45@DC ~ 7.65 (Type50)	15	SMA-F	25x24x10
TA0145-HS	10	11 ~ 18	≤1.0	≤2.0	≥45@DC ~ 8.5 (Type50)	15	SMA-F	25x23x10
TA0146-HS	11	12.1 ~ 18	≤1.0	≤2.0	≥45@DC ~ 9.35 (Type50)	15	SMA-F	24x22x10
TA0147-HS	12	13.2 ~ 18	≤1.0	≤2.0	≥45@DC ~ 10.2 (Type50)	15	SMA-F	24x21x10
TA0034-HS	----	2 ~ 18	≤1.0	≤2.0	≥50@DC ~ 1.5 (Type60)	15	SMA-F	44x17x10
TA0223-HS	----	3 ~ 18	≤1.0	≤2.0	≥65@DC ~ 2 (Type70)	15	SMA-F	31x17x10
TA0225-HS	----	4 ~ 18	≤1.0	≤2.0	≥40@DC ~ 3 (Type45)	15	SMA-F	28x17x10
TA0074-HS	----	1.5 ~ 13	≤1.0	≤2.0	≥50@DC ~ 1 (Type65)	15	SMA-F	53x20x10
TA0233-HS	----	4 ~ 18	≤1.0	≤2.0	≥40@DC ~ 2.5	15	SMA-F	22x17x10

Low Pass Filter Series

Model	3dB Cut off(GHz)	1dB Pass Band(GHz)	Insertion Loss(dB)	VSWR	Stop Band Rejection (dB@GHz)	Power Handling(W)	Connectors	Size LxWxH(mm)
TA0148-LS	1	DC ~ 0.9	≤1.0	≤2.0	≥45@1.2 ~ 4 (Type50)	15	SMA-F	120x41x10
TA0098-LS	2	DC ~ 1.8	≤1.0	≤2.0	≥45@2.3 ~ 6 (Type50)	15	SMA-F	53x36x10
TA0106-LS	3	DC ~ 2.7	≤1.0	≤2.0	≥45@3.45 ~ 8 (Type50)	15	SMA-F	41x34x10
TA0149-LS	4	DC ~ 3.6	≤1.0	≤2.0	≥45@4.6 ~ 10 (Type50)	15	SMA-F	39x27x10
TA0150-LS	5	DC ~ 4.5	≤1.0	≤2.0	≥45@5.8 ~ 12 (Type50)	15	SMA-F	35x24x10
TA0137-LS	6	DC ~ 5.4	≤1.0	≤2.0	≥45@6.9 ~ 14 (Type50)	15	SMA-F	35x22x10
TA0151-LS	7	DC ~ 6.3	≤1.0	≤2.0	≥45@8 ~ 15 (Type50)	15	SMA-F	33x22x10
TA0152-LS	8	DC ~ 7.2	≤1.0	≤2.0	≥45@9.2 ~ 16 (Type50)	15	SMA-F	33x21x10
TA0079-LS	9	DC ~ 8.1	≤1.0	≤2.0	≥45@10.4 ~ 16.5 (Type50)	15	SMA-F	25x19x10
TA0153-LS	10	DC ~ 9	≤1.0	≤2.0	≥45@11.5 ~ 17 (Type50)	15	SMA-F	24x18.5x10
TA0154-LS	11	DC ~ 9.9	≤1.0	≤2.0	≥45@12.5 ~ 17.5 (Type50)	15	SMA-F	23x18.5x10
TA0155-LS	12	DC ~ 10.8	≤1.0	≤2.0	≥45@13.8 ~ 18 (Type50)	15	SMA-F	20x18x10
TA0229-LS	13	DC ~ 11.7	≤1.0	≤2.0	≥45@15 ~ 19 (Type50)	15	SMA-F	20x17.5x10
TA0224-LS	14	DC ~ 12.6	≤1.0	≤2.0	≥45@16.1 ~ 20 (Type50)	15	SMA-F	19x17.5x10
TA0173-LS	----	DC ~ 2	≤1.0	≤2.0	≥50@2.5 ~ 13 (Type55)	15	SMA-F	83x35x10
TA0071-LS	----	DC ~ 2.75	≤1.6	≤1.7	≥40@3 ~ 8.5 (Type45)	15	SMA-F	59x39x10

WLAN & Wi-Fi Filters

Compact Wideband Bandpass Filters

WLAN & Wi-Fi 4.9G & 5.8G Bandpass Filters

Indoors & Outdoors IP65

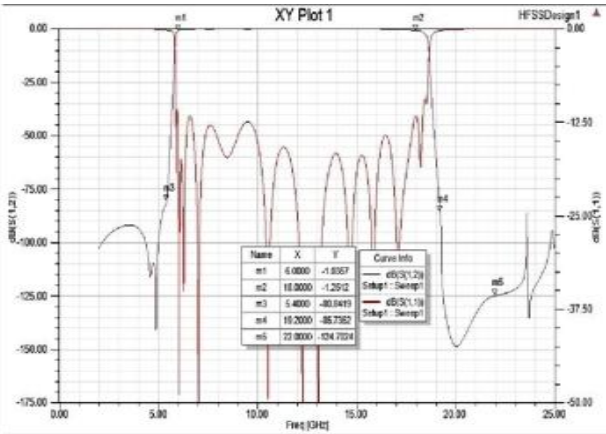
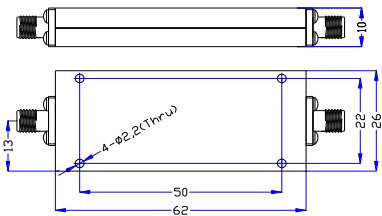
Center Frequency	4965MHz	5800MHz
Bandwidth	50MHz	150MHz
Insertion Loss	≤1.0dB	≤0.5dB
Ripple	≤1.0dB	≤1.0dB
Return Loss	≥10dB	≥10dB
Power	50W	50W
Impedance	50Ω	50Ω
Rejection	≥6dB@4890MHz ≥6dB@5040MHz	≥6dB@5570MHz ≥6dB@6030MHz
Operating Temperature	-40℃ ~ +85℃	-40℃ ~ +85℃
Surface Finish	Black Paint	Black Paint
Port Connectors	N-Female	N-Female
Waterproof ability	IP 65	IP65
Configuration	As Below (Tolerance±0.2)	As Below (Tolerance±0.2)



Compact Wideband Bandpass Filters

3–6GHz & 6–18GHz Miniature Bandpass Filter for Equalizer

- ✓ Support Equalizer, freq.-dependent processing of audio signals
- ✓ Support Comm & Telecom Apps
- ✓ High Attenuation value, Low IL
- ✓ 50 ohms, Power ≤ 5Watt
- ✓ *Specs are subject to final confirmation.*



Frequency	4.5GHz	12GHz
Pass Band Frequency	3.0~6.0GHz	6.0~18.0GHz
IL	≤ 1.0dB	≤ 2.5dB
VSWR	≤ 1.6:1	≤ 1.8:1 (Type ≤ 1.6:1)
Stop Band Atten	≥ 45dB@DC ~ 2.0GHz ≥ 45dB@7.0 ~ 8.0GHz	≥ 60dB@DC ~ 5.4GHz ≥ 60dB@19.2 ~ 22.0GHz
Surface Finish	Original Silver Color	Guide Oxygen Black Paint
Connectors	SMA-Female	SMA-Female

C-Band 6750MHz BPF

Specification	
Center Freq (Fo)	6750 MHz
Bandwidth	600 MHz (6450~7050MHz)
Insertion Loss	<1.0dB
Stop Band Rejection	>80dB @DC~5500M, 11000~16500M >60dB @5500~6250M, 7250~11000M
Power Handling	<2 Watt
Temperature	-30°C ~ +70°C
Impedance	50 ohm
Connector	Input: SMA-Female Output: SMA-Male
Dimension	212x23x12 mm

L-Band (1-2 Ghz)
S-Band (2-4 Ghz)
C-Band (4-8 Ghz)
X-Band (8-12 Ghz)
Ku-Band (12-18 Ghz)
Ka-Band (26-40 Ghz)

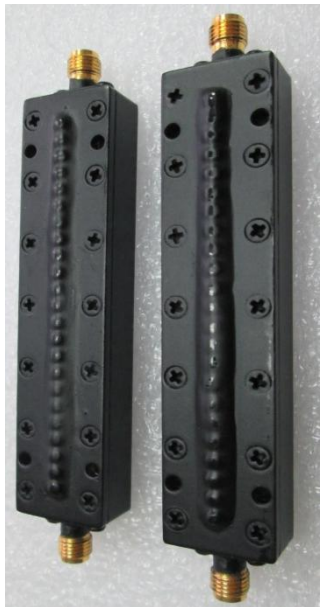
S-Band 2900MHz BPF

Specification	
Center Freq (Fo)	2900 MHz
Bandwidth	30 MHz (2885~2915MHz)
Insertion Loss	<1.5dB
Rejection	>40dB @Fo±60MHz (DC~2840M、2960~7000M)
Power Handling	<20 Watt
Temperature	-40°C ~ +70°C
Impedance	50 ohm
Connector	SMA-Female
Surface Color	Black Paint or Silver Plain
Dimension	97x30x20 mm



Ku Band 11.7GHz BPF

Specification	
Center Freq (Fo)	11.7 Ghz
Bandwidth	1500 MHz (10.95~12.45GHz)
Insertion Loss	<2.0dB
Ripple Band	<0.3dB peak-peak in any 80MHz interval <1.2dB peak-peak within signal BW (1500MHz)
Rejection	>80dB @DC~10.25GHz >60dB @10.25-10.4GHz >80dB @13-14.5GHz, 15.05-16.55GHz
VSWR	<1.23 (-20dB)
Temperature	-30°C ~ +70°C
Impedance	50 ohm
Connector	SMA-K
Surface Color	Black Paint
Dimension	81x18x13 mm



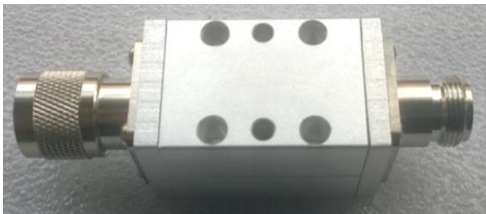
Satellite LNB Filter–Power Pass



Specification	
Centre Freq	1030 MHz
Bandwidth	130 MHz
Insertion Loss	<3.0 dB
Rejection	20dB @ Fo+/- 100 MHz
Return Loss	>12 dB
Impedance	75 ohm
Connector	F-Female
Dimension	46x56x19 mm

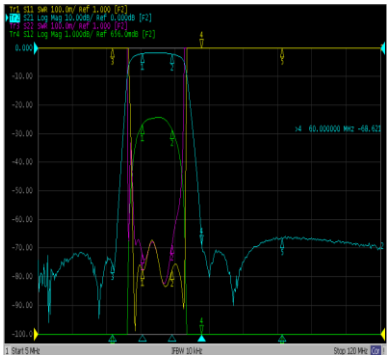
High Power S–Band Lowpass Filter

Specification	
Passband	2700~3100 MHz
Insertion Loss	<0.3dB (in Passband)
Attenuation	15dB @5400~6200 MHz 15dB @8100~9300 MHz
Power Handling	CW: 250 Watt 1300W Peak Power
Impedance	50 ohm
Connector	N-Female / Male
Surface Color	Silvery White
Dimension	50x30x30 mm



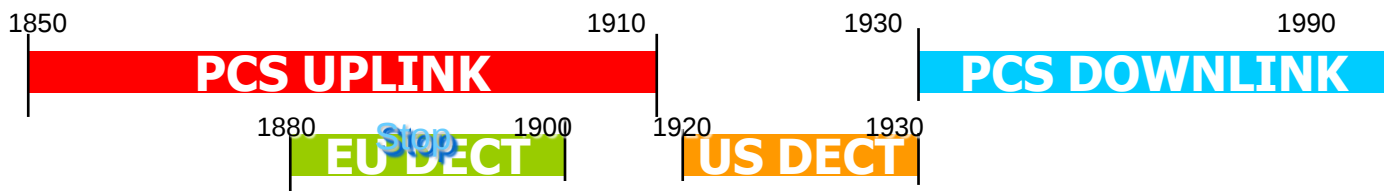
Satellite & D–TV (ch1–12) Channel BP Filters

Channel	Pass Band	Channel	Pass Band
VHF-FM		K-WNW	
CH1	30-40 MHz	CH7	108-157 MHz
CH2	40-50 MHz	CH8	147-230 MHz
CH3	50-60 MHz	CH9	220-290 MHz
CH4	60-70 MHz	CH10	280-345 MHz
CH5	70-80 MHz	CH11	335-405 MHz
CH6	80-88 MHz	CH12	395-512 MHz
IL	≤ 4.0 dB		
Ripple	≤ 1.2 dB		
VSWR	≤ 1.5 : 1		
Rejection	≥ -40dB		
Power	1 Watt		
I/O PORT	50 ohm Feed		
Dimension	39*10.5*8 mm		



DECT Dual-Band Filters

Parameters	CH1	CH2
Center Frequency	1862.5MHz	1952.5MHz
Pass Band Frequency	1855 ~ 1870MHz	1935 ~ 1970MHz
Insertion Loss	$\leq 2.3\text{dB}$	
Return Loss	$\geq 18\text{dB}$	
Rejection	$\geq 30\text{dB}$ @ DC ~ 1845MHz	
	$\geq 30\text{dB}$ @ 1880 ~ 1930MHz	
	$\geq 30\text{dB}$ @ 1977 ~ 4000MHz	
Power Handling	50W	
Impedance	50 ohms	
Surface Finish	Black Paint	
Connectors	SMA-Female	



DECT Notch Filters

- Solved system work conflict between PCS & EU DECT band
- High Accuracy, Competitive Price
- Apps: Telecommunication, Mobile, Repeater
- Band-pass, Ceramic design can discuss



Stop Band Freq.	1880-1990 MHz
Stop Band Attenuation	$\geq 60\text{dB}$
Pass Band Freq.	DC-1810 & 2060-5000 MHz
Pass Band Insertion Loss	$\leq 1.0\text{dB}$
Pass Band VSWR	$\leq 1.5:1$
Power Handling	≤ 10 Watt
In/Out Impedance	50 Ω
Connectors	SMA-Female

High Power 100W, 200W Band Rejection Filter For LTE Base Station

Parts Number	TCF-541/555M-N	TCF-547/561M-N	TCF-589/603M-N	TCF-619/633M-N
Frequency	541 ~ 555 MHz	547 ~ 561 MHz	589 ~ 603 MHz	619 ~ 633 MHz
Insertion loss	≤1.0dB	≤1.0dB	≤1.1dB	≤1.1dB
Return loss	≥18dB	≥18dB	≥18dB	≥18dB
Rejection	45dB @300 ~ 532M 45dB @564 ~ 1000M	50dB @300 ~ 538M 50dB @570 ~ 1000M	45dB @300 ~ 580M 45dB @612 ~ 1000M	50dB @300 ~ 609M 50dB @642 ~ 1000M
Impedance	50Ω			
Connector	N-F			
Power	100W			
SIZE	122*83*72mm	122*83*72mm	122*83*69mm	119*81*69mm



LTE 2.6G Cavity Band-Pass Filter

Center Freq	2535 MHz	2555 MHz
Bandwidth	90 MHz (2490~2580MHz)	140 MHz (2485-2625MHz)
Insertion Loss	<1.0dB	<1.6dB
Rejection	>45dB @ DC ~ 2460MHz >25dB @ 2460 ~ 2470MHz >45dB @ 2600 ~ 4000MHz	>45dB @ DC ~ 2460MHz >45dB @ 2646 ~ 2700MHz >25dB @ 2635 ~ 2640MHz
Dimension	180 x 92 x 30 mm	170 x 130 x 35 mm
Impedance	50 ohm	
Connector	N option (female or male)	
Surface Color	Original Silver or Black Paint	



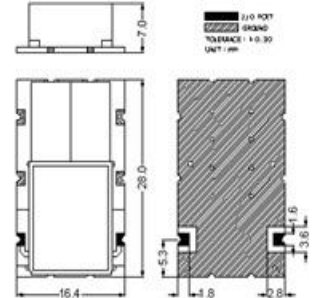
LTE Channel Band Rejection Filter

	LTE Band 1	LTE Band 2	LTE Band 3-4	LTE Band 5	LTE Band 7
Stop Band	1940-1960MHz	1870-1890MHz	1722.5-1742.5MHz	826.5-846.5MHz	2525-2545MHz
Attenuation	>50dB	>50dB	>50dB	>50dB	>50dB
	LTE Band 8	LTE Band 13	LTE Band 17	LTE Band 20	LTE Band 25
Stop Band	887.5-907.5MHz	777-787MHz	704-716MHz	837-857MHz	1872.5-1892.5MHz
Attenuation	>50dB	>50dB	>50dB	>50dB	>50dB
	GSM850 CH 190	GSM900 CH 63	GSM1800 CH 699	GSM1900 CH 661	
Stop Band	835.5-837.5MHz	901.6-903.6MHz	1746.6-1748.6MHz	1799-1881MHz	
Attenuation	>50dB	>50dB	>50dB	>50dB	
Power	<50 Watt				
Impedance	50 ohm				
Connector	Input/Output: SMA-Female				



DR SMD BandStop Filters

Center Frequency [fo]	5~787MHz
Insertion Loss @ fo	3.5 dB max.
Ripple in BW	3.5 dB max.@670MHz ~787MHz
	2.5 dB max.@5MHz ~460MHz
Return Loss in BW	10dB min@5~320MHz
	5dB min@321~660MHz
	10dB min@661~787MHz
Attenuation	8 dB min @ 791MHz
[Absolute Value]	17 dB min @ 793MHz
	20 dB min @ 794~862MHz
In/Out Impedance	75Ω
Input Power	3 W max.
Operation Temp Range	-40 C to +85 C



Lumped BandStop Filters

Impedance	75 ohm
Pass Band	5-790 MHz
Pass Band Insertion Loss	3.0dB (typ) / 5.0dB (max)
Stop Band	799MHz-862MHz
Stop Band Rejection	30dB (min)
Dimensions (incl. M/F connectors)	21(Φ) x 57(L) mm
Net Weight	48g



DVB-C BandStop Filter

Stop Band	522~530MHz
Stop Band Attenuation	≥40dB
Pass Band	5~480 & 573~1000 MHz
Pass Band Insertion Loss	≤1.5dB @5~480MHz ≤1.5dB @573~1000MHz
Return Loss	≥14dB
Impedance	75 ohms
Connectors	F Female
Dimension Size	87mm x 27mm x 17mm



CATV BandStop Filter

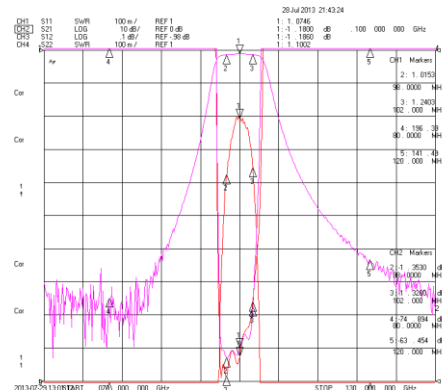
Stopband	352.25 ~ 487.25 MHz
Insertion Loss	≤4.0 dB @ 5~336.25MHz
	≤ 4.0 dB @ 503.25~860MHz
Attenuation	≥40dB@336.25MHz~487.25MHz
Return Loss	≥12 dB @ 5~336.25MHz
	≥12 dB @ 503.25~860MHz
Impedance	75 ohms
Connectors	F Female

Spiral & Comb Band Pass Filter

FM & UMTS & GSM Filters

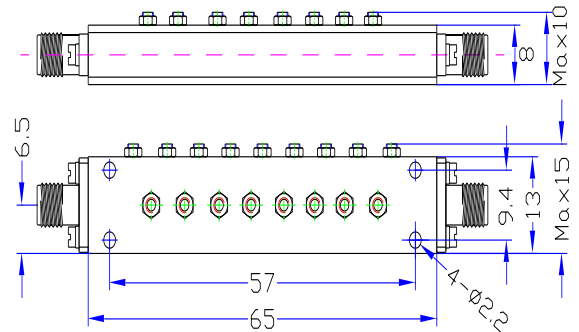
IF Convert Filters– Spiral BPF

Specification	
Parts Number	ST-A1199-LX
Center Frequency	100 MHz
Bandwidth	4MHz (98MHz ~ 102MHz)
Insertion Loss	≤3.0dB
Ripple	≤1.0dB
VSWR	≤1.3:1
Rejection	≥30dB@DC ~ 80MHz ≥30dB@120MHz ~ 250MHz
Impedance	50Ω
Power	5 W
Surface Finish	Black Paint
Connectors	SMA-Female variable



Comb Filters

Specification	
Parts Number	TA0345-S09
1dB Pass Band Frequency	15.8 ~ 17.4GHz (F0=16.6GHz)
Insertion Loss @ Center Frequency	≤1.0dB @ 16.6GHz
VSWR	≤1.7:1
Rejection	≥80dB @ 14GHz ≥50dB @ 20GHz
Port Connectors	SMA-Female
Operating Temperature	-40°C ~ +80°C
Surface Finish	The Original Silver Colour



FM & UMTS & GSM Filters

Band-Pass	FM Band	UMTS Band	GSM Band
Pass Band	88-108MHz	1920-2170MHz	880-960MHz
Insertion Loss	2.2dB	2.0dB	2.0dB
Rejection	>30dB @20M-78M >30dB @115M-3000M	>40dB @20M-1820M >40dB @2270M-3000M	>30dB @20M-845M >30dB @995M-3000M
Band-Stop	FM Band	UMTS Band	GSM Band
Stop Band	88-108MHz	1920-2170MHz	880-960MHz
Stop Band Loss	>30dB	>25dB	>30dB
Pass Band Loss	<2dB @20M-78M <2dB @115M-1800M	<2dB @20M-1820M <2dB @2270M-3000M	<2dB @20M-845M <2dB @995M-2000M
Power	> 1Watt		
Impedance	50 ohm		
Connector	Input/Output: SMA-Female		

TETRA Cavity Diplexer

	Rx	Tx
Center Frequency	382.5 MHz	392.5 MHz
Pass Band Freq.	380~385 MHz	390~395 MHz
Insertion Loss	≤4.2dB	≤4.2dB
Ripple in BW	≤2.5dB	≤2.5dB
Return Loss	≥15dB	≥15dB
Attenuation	≥60dB@390-395M	≥60dB@380-385M
Power	50 Watt CW	



Helix Cavity Diplexer

	ANT-RX	ANT-TX
Frequency Range	248.75~253.75MHz	226.25~231.25MHz
Insertion Loss	≤3.0dB	≤3.0dB
Ripple in Band	≤1.0dB	≤1.0dB
VSWR	≤1.5	≤1.5
Rejection	≥40dB@1 ~ 216MHz ≥60dB@226.25 ~ 231.25MHz ≥40dB@300 ~ 1000MHz	≥40dB@1 ~ 216MHz ≥60dB@248.75 ~ 253.75MHz ≥50dB@300 ~ 462.5MHz ≥40dB@462.5 ~ 1000MHz
Isolation (TX/RX)	Min 74dB (Room Temperature)	
Power	10W	
Surface Finish	Black Paint	
Port Connectors	SMA-Female	
Operation Temperature	-30°C~+85°C	



LTE800 & GSM900 Low PIM Diplexer

	RX	TX
Frequency Range	790-862 MHz	880-960 MHz
Insertion Loss	≤1.0 dB	≤1.0 dB
Ripple	≤0.8 dB	≤0.8 dB
Return Loss	≥17 dB	≥17 dB
Rejection	≥35 dB@880-960 MHz	≥35 dB@790-862 MHz
IM3	≤-150dbc@2*43dbm	
Power Input	≤ 200 W	
Impedance	50Ω	
Connectors	N-Female	
Surface Finish	Black Paint	



GSM1800 & UMTS & GMS900

	ANT--RX		ANT--TX
Frequency Range	880-960MHz	1710-1880MHz	1920-2170MHz
Insertion Loss	≤0.7dB	≤0.7dB	≤0.7dB
Flatness over passband	≤0.5dB	≤0.5dB	≤0.5dB
Return Loss	≥18dB	≥18dB	≥18dB
Rejection	≥34dB@1710-1880MHz	≥34dB@1920-2170MHz	≥34dB@1710-1880MHz
	≥50dB@1920-2170MHz	≥50dB@880-960MHz	≥50dB@880-960MHz
Isolation	≥35dB@1710-1880MHz&1920-2170MHz&880-960MHz		
Power handling c.w	50W		
Port Connectors	N-Female		
Surface Finish	Black paint		
Port Sign	Port 1: ANT ; Port 2:RX ; Port 3:TX		
Operational Temperature	-20 to +55°C		
Configuration	125.5 X125.5X 30 mm		

5.8G Coaxial Duplexer

Pass Band	5787.5-5807.5MHz	5827.5-5847.5MHz
Insertion Loss	≤2.4dB	≤2.4dB
Rejection	5827.5-5847.5MHz ≥55dBc	5787.5-5807.5MHz ≥55dBc
	5650-5665MHz ≥50dBc	5745-5770MHz ≥50dBc
	4500-5650MHz ≥35dBc	4500-5745MHz ≥35dBc
	5847.5-6700MHz ≥35dBc	5880-6700MHz ≥35dBc
Connector	SMA-J	
VSWR	≤1.5	≤1.5
Impedance	50ohm	
Temperature	-20~+75°C	
Power Handling	≥1W	
Configuration	200x 30x 16 mm	

Mobile Radio Quadriplexer

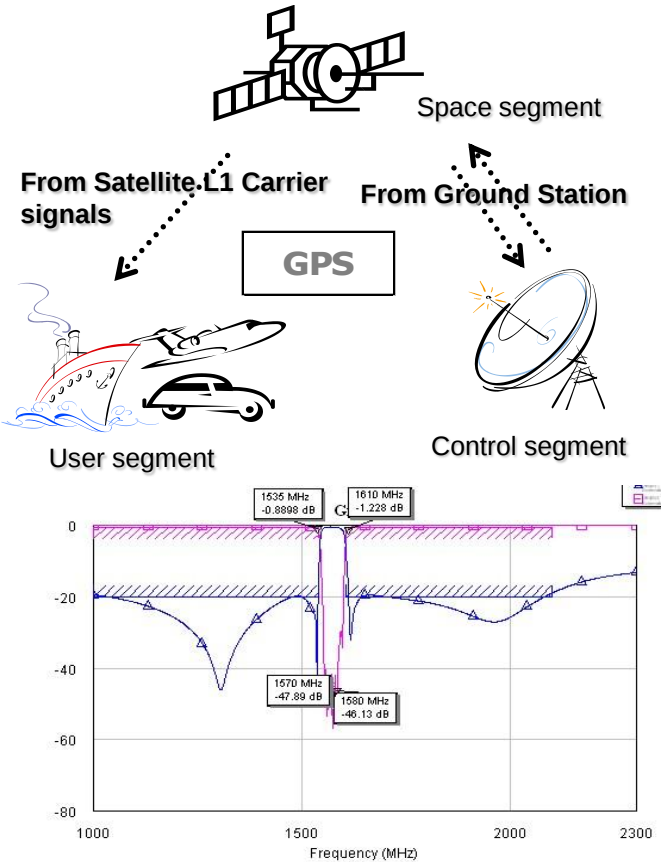
	(Port 1) GSM 850/900	(Port 2) GSM 1800	(Port 3) UMTS	(Port 4) LTE
Passband	824-960 MHz	1710-1880 MHz	1920-2170 MHz	2500-2690 MHz
Insertion Loss	≤0.6dB	≤1.2dB	≤1.2dB	≤0.8dB
VSWR	≤1.35			
Isolation	≥70dB @1710-1880M	≥70dB @824-960M ≥70dB @1920-2170M	≥70dB @1710-1880M ≥70dB @2500-2690M	≥70dB @1920-2170M
Power (CW)	100W			
Connector	N-Female			
Surface Color	Black Paint			

GPS Notch SMD Filters

- ✓ L1: 1575.42MHz
- ✓ L2: 1227.60MHz
- ✓ L3: 1381.05MHz
- ✓ L4: 1379.913MHz
- ✓ L5: 1176.45MHz



Reject Freq.	1575 MHz
Reject BW	10 MHz
Attenuation	35 dB min.
Pass Band [BW]	Low Band DC~1535 MHz High Band 1610 MHz
IL in BW	Low Band 3.0 dB max. High Band 3.0 dB max.
Input Power	3 Watt
In/Out Impedance	50 Ω
O.T. Range	-40℃ to +85℃
Dimension	33.5 * 18.5 * 7.5 mm



3G,4G,5G SMD BPF

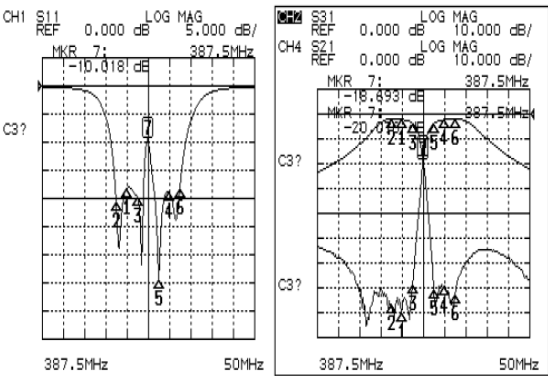
- Three Popular Frequencies Solution
- Application: Navigation, Detector, Telecommunication, Radar, Receiver, WiMAX/Wi-Fi devices and etc.
- Band Stop Filter is available.



Application Bands		DCS and WCDMA 3G	LTE 4G	WLAN 5G
Parameters / Part No.		TDRF1940B460	TDRF2545B290	TDRF5800B150
1	Pass Band	1710~2170 MHz	2400~2690 MHz	5725~5875 MHz
2	Insertion Loss	3.0 dB	3.0 dB	2.0 dB
3	Attenuation	>20.0 dB @1500M >7.0 dB @2300M	>10.0 dB @2300M >7.0 dB @2790M	>30.0 dB @5400M >30.0 dB @6200M
4	Impedance	50 ohms		
5	Input Power	2.0 Watts		
6	Operation Temperature	-40℃ to +85 ℃		

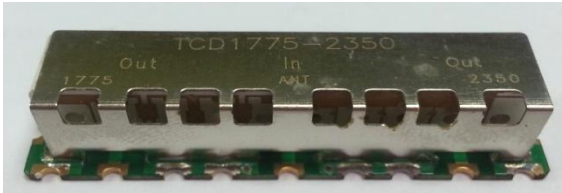
SMD TETRA Duplexers

	Lower	Upper
Frequency	382.5MHz	392.5MHz
Bandwidth	Fo±2.5 (380-385M)	Fo±2.5 (390-395M)
Insertion Loss	4.0dB (Model A) 2.8dB (Model B)	4.0dB (Model A) 2.8dB (Model B)
Ripple	2.5 dB	2.5 dB
Attenuation	60dB @390~395M (Model A) 25dB @390~395M (Model B)	60dB @390~395M (Model A) 25dB @390~395M (Model B)
Operating Temperature	-40 °C to +85 °C (Model A) -20 °C to +70 °C (Model B)	
Impedance	50Ω	
Input Power	10 W	



SMD Multiplexer (Multi-Channels Filters)

- Integrate several signals in one module to save board space.
- Applications: Microwave Telecommunication, Radar, Aviation, Navigation, Mining, Electronics counterwork, Channel Management, Satellite-Ground etc.
- SMD, Connector and Niddle type are available.



ELECTRICAL SPECIFICATIONS (SMD type, 5 in 5 out demo specs)						
Parameters		CH1	CH2	CH3	CH4	CH5
1	Center Frequency	742.5	872.5	1962.5	2132.5	2593
2	Bandwidth [BW]	728-757	851-894	1930-1995	2110-2155	2496-2690
3	Insertion Loss in BW	3.0 dB max				
4	Ripple in BW	1.0 dB max				
	VSWR in BW	1.5 dB max.				
5	Attenuation [Absolute Value]	30 @ 851-894M 30 @ 1930-1995M 30 @ 2110-2155M	30 @ 728-757M 30 @ 1930-1995M 30 @ 2110-2155M	30 @ 728-757M 30 @ 851-894M 30 @ 2110-2155M	30 @ 728-757M 30 @ 851-894M 30 @ 1930-1995M	30 @ 2110-2155M
6	Input Power	3.0 W max.				
7	In/Out Impedance	50 ohm				
8	Operation Temperature	-40 °C to +85 °C				
9	Dimension	123x38x10.5 mm				

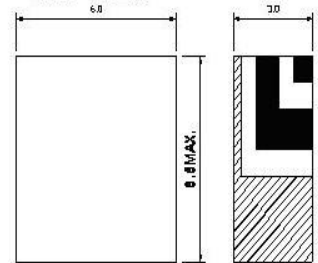
Features:

- ✓ TOKO & Murata Compatible
- ✓ Center Freq. Range: 800MHz – 6000MHz
- ✓ 2 Pole – 5 Pole
- ✓ Application: Cellular, GPS, Cordless Phone, MCA, Satellite, Spread Spectrum, CATV, TCAS, WLAN, Inmarsat, Antenna Duplexer, DR Resonator and etc.

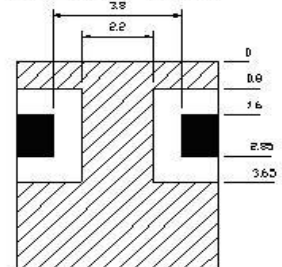
Toko No.	TDFM3A-1590J-10A	4DFA-1227D-12
Temstron Across No.	TDF32C1590S50B	TDF32C1227S10B
Frequency	1590.0 MHz	1227.0 MHz
Band Width	$f_o \pm 25\text{MHz}$ [1565MHz~1615MHz]	$f_o \pm 5\text{MHz}$ [1222MHz~ 1232MHz]
Insertion Loss	2.0 dB (Max.)	1.5 dB (Max.)
VSWR	2.0 : 1 (Max.)	2.0 : 1 (Max.)
Attenuation	10.0 min. @ $f_o \pm 140\text{ MHz}$	15.0 min. @ $f_o + 140\text{ MHz}$ 20.0 min. @ $f_o - 140\text{ MHz}$
Impedance	50 Ω	
Operation Temp	-40°C to +85°C	
Toko Dimensions	4.5 x 5.1 x 2.8mm	12.5x 14 x 5.0mm
Temstron DIM.	7.5 x 6.0 x 3.0mm	6.5 x 6.0 x 3.0mm



TOP VIEW



BOTTOM VIEW



Tolerance Unless
Otherwise Specified : ± 0.20
Unit : mm

- ✓DR Filters
 - ✓DR Duplexers
 - ✓DR Resonators
- Custom Design, Upon your requests

	Di-electric Filter	Di-electric Duplexer
Frequency	902.5 MHz	TX 830.0 MHz/ RX 875.0 MHz
Band Width	$f_o \pm 12.5\text{MHz}$ [890MHz~915MHz]	$f_o \pm 5\text{MHz}$
Insertion Loss	2.5 dB (Max.)	2.5 dB (Max.)
VSWR	1.7 (Max.)	1.7 (Max.)
Attenuation	12.0 min. @ $f_o \pm 32.5\text{ MHz}$	45.0 @ $f_r \pm 5.0$
Temstron DIM.	11.0 x 4.5 x 15.0mm	24.0 x 10.0 x 4.1mm

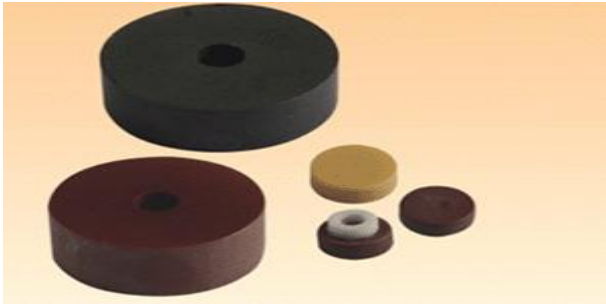


Features	Applications	
High Dielectric Contant High Q Low temperature coefficient Low cost	Cellular Base Station Dielectric Resonator Antennas Direct Broadcast Satellite Receivers Filters and Combiners	LMDS/MMDS Wireless Cable TV LNB PCS / PCN Filters and Combiners Police Radar Detectors

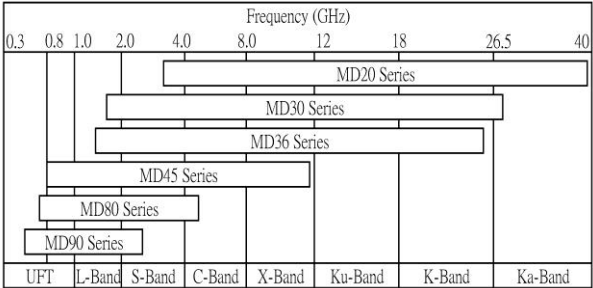
Available Range						
Material Series	Dielectric Contant	Fo. Q (1/tan δ)	Temperature Coefficient (ppm/°C)	Insulation Resistance (Ω-cm)	Application Frequency Range	Application Range
TMD20	19~22	6,000@ 10GHz	-3 ~ +6	>10 ¹⁴	Refer Frequency Chat	Refer Frequency Chat
TMD30	29~30	15,000@ 10GHz	-3 ~ +6	>10 ¹⁴		
TMD36	35~37	10,000@ 4GHz	-3 ~ +9	>10 ¹⁴		
TMD45	44~46	10,000@ 4GHz	-6 ~ +9	>10 ¹⁴		
TMD80	79~81	7,000@ 1GHz	-3 ~ +9	>10 ¹⁴		
TMD90	89~91	7,000@ 1GHz	-4 ~ +12	>10 ¹⁴		

Principal Parameters							
Part No.	Dielectric Contant	Resonant Frequency (MHz)	Temperature Coefficient (ppm/°C)	Unloaded Q value (min)	Outer Dimension (mm)	Inter Dimension (mm)	Thickness (mm)
TMDR-862-2.3A	44-46	862	-6 ~ +9	23000	60.5	21.59	27
TMDR-888-2.5A	44-46	888	-6 ~ +9	25000	60.5	21.59	23
TMDR-1980-1.2A	35-37	1980	-3 ~ +9	12000	28.2	6	12.5

Configuration



Frequency Chart



Parts Number

TMDR - -

① ② ③ ④

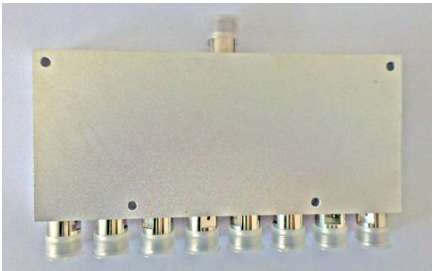
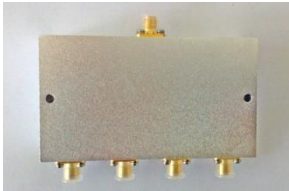
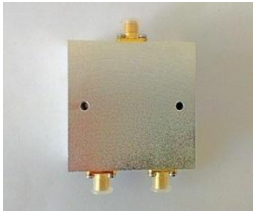
① Temstron Dielectric Resonator
② Resonant Frequency
③ Q value
④ Versions

Configuration



800M–2.5G Power Divider

Part Number	TPD-0.8/2.5-2S	TPD-0.8/2.5-4S	TPD-0.8/2.5-8N
Type	2 Way	4 Way	8 Way
Frequency Range	0.8~2.5GHz		
Insertion Loss	≤0.5dB	≤0.6dB	≤1.2dB
Isolation	≥20dB		
VSWR	≤1.30:1	≤1.35:1	≤1.5:1
Power Handling	Forward≤20 Watts Reversed≤1 Watt		
OT Range	- 20℃ ~ + 65 ℃		
Impedance	50Ω		
Port Connectors	SMA-Female	SMA-Female	N-Female
Surface Color	Silver White		
Dimension	50.8*50.8*29mm	89*50*19.5mm	180*80*22mm



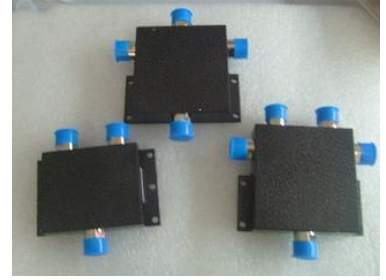
700M–2.7Ghz Power Divider

Model	2-Way	3-Way	4-Way
TPD-0.7/2.7	1 In, 2 Out	1 In, 3 Out	1 In, 4 Out
Cover Frequency	700MHz to 2700MHz		
Insertion Loss	≤ 0.5dB	≤ 1.2dB	≤ 0.8dB
VSWR	≤ 1.3:1	≤ 1.65:1	≤ 1.3:1
Isolation	≥ 20dB	≥ 16dB	≥ 20dB
Power Handling	50 Watts Max.		
Port Connector	N-Female or SMA for option		
Impedance	50 ohm		
Temperature	Operate at -25℃ ~ +65℃		
Package	Indoors (IP65 Outdoors upon requests)		
Dimensions (mm)	75 x 46 x 19	84 x 77 x 19	94 x 77 x 19



Cavity Power Splitter

Frequency(MHz)	350-2700MHz		
Product Name	2 way	3 way	4 way
Insertion Loss(dB)	≤3.2	≤5.4	≤6.5
VSWR	≤1.25:1		
Power Capacity(W)	200		
Impedance(ohm)	50		
RF Connector	N-female or DIN(7/16)-female		
Application	Indoor		
Operating Temperature(deg)	-35~+60		
Color	Black-plated or Silvery-white Plated		
Material	Aluminum		
Relative Humidity	5%-95%		



Micro-Strip Power Splitter

Insertion Loss(dB)	≤3.4max	≤5.5max	≤6.5max
Isolation(dB)	≥20		
	≥16		
Power Rating(W)	50		
Impedance(ohm)	50		
VSWR	≤1.30:1		
RF Connector	N-type or SMA-type		
Dimensions (mm)	210.1×60.4×20	235.4×60.4×18	235.4×60.4×18
Including Connectors			
Weight(kg)	0.175	0.21	0.23
Color	Black-plated		
Relative Humidity	5%-95%		
Temperature(deg)	-35~+60		
Application	Indoor or Outdoor		

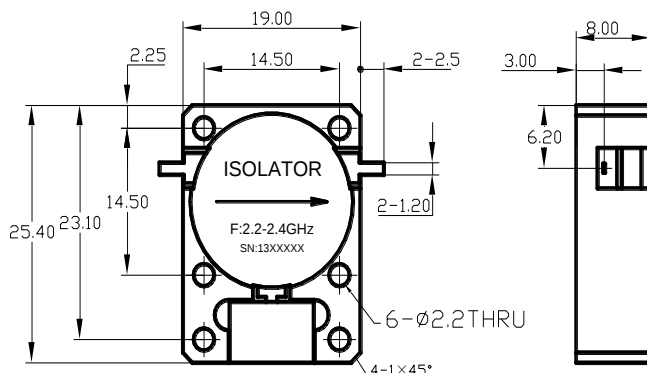


CATV, D-TV Power Splitter (75 ohm)

Specification		2 WAY		3 WAY		4 WAY		6 WAY		8 WAY	
	Frequency Range	TYP	QA	TYP	QA	TYP	QA	TYP	QA	TYP	QA
Insertion loss	5-40MHz	4.5	5.5	8.0	8.5	9.0	10.0	11.0	12.0	12.5	13.5
	40-862MHz	4.5	5.5	8.0	8.5	9.0	10.0	11.0	12.0	12.5	13.5
	862-1750MHz	5.5	6.0	10.0	10.5	11.5	12.0	14.5	16.0	16.0	17.5
	1750-2050MHz	5.5	6.0	10.0	10.5	11.5	12.0	15.0	16.0	16.0	17.5
	2050-2450MHz	5.5	6.5	11.0	11.5	12.0	12.5	16.5	17.5	17.5	18.5
Isolation	5-40MHz	20	16	22	18	25	20	25	20	25	20
	40-862MHz	35	29	35	29	35	29	35	29	35	29
	862-1750MHz	23	20	23	20	23	20	23	20	23	20
	1750-2050MHz	23	20	23	20	23	20	23	20	23	20
	2050-2450MHz	23	20	23	20	23	20	23	20	23	20
Return loss input	5-40MHz	12	10	12	10	12	10	12	10	10	8
	40-862MHz	12	10	12	10	12	10	12	10	10	8
	862-1750MHz	12	10	12	10	12	10	12	10	12	10
	1750-2050MHz	12	10	12	10	12	10	12	10	12	10
	2050-2450MHz	12	10	12	10	12	10	12	10	12	10

Isolator

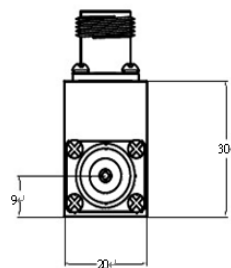
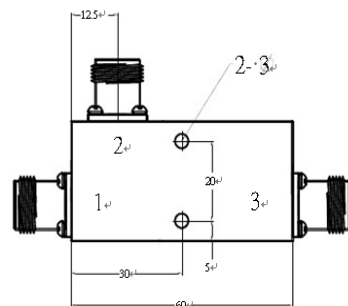
Items	Room Temp.	-20°C ~+85°C
Frequency Range	2.2~2.4GHz	2.2~2.4GHz
Insertion Loss	≤0.3dB	≤0.35dB
Isolation	≥22dB	≥20dB
VSWR	≤1.20:1	≤1.25:1
Forward Power	100W	
Reverse Power	100W	
Operating Temperature	-20°C ~+85°C	
Port Connectors	Micro-strip W/W	
Direction	As drawing ; left to right	



GB/T 1804-2000

Circulator

Items	Specifications
Frequency	1850MHz-1910MHz & 1930MHz-1990MHz
Insertion Loss	1-2 ≤ 0.5dB , 3-1 ≤ 1.5dB
Ripple	0.5 (3-1)
Isolation	3-2 , 2-1 ≥ 21dB 1-3 ≥ 45dB
VSWR	≤ 1.25:1
Operating Temp	-20~+70°C
Forward Power	50W
Reverse Power	20W
Input Port / Output Port	F-Female / F-Female



3 Db Hybrid Couplers

Frequency Range	800-2500MHz	700-2700MHz	800-2700MHz
Insertion Loss	≤0.5dB		
Coupling	3±0.5 dB	3±0.7 dB	3±0.7 dB or 3±0.5 dB
Isolation	≥20 dB		
VSWR	≤1.3:1		
Impedance	50 OHMS		
Power Handling	200 Watts		300 Watts or 500 Watts
IM3	≤-140dBc@(+43dBm×2)		
Port Connectors	N-Female		N-Female of DIN-F
Operate Temperature	-20°C to +60°C		-30°C to +70°C



RF Coaxial Attenuator

2W, 5W, 10W, 25W, 50W, 100W, 200W, 300W, STEP attenuator, etc.

Freq Range	Attenuation Value &							VSRW
	3~6	10	20	30	40	50	60	
DC-3GHz	±0.5	±0.8	±1.0	±1.0	±2.0	±2.5	±3.0	≤1.20
DC-5GHz	1~9	10	20	30	40			≤1.25
	±0.6	±0.6	±0.6	±1.0	±1.2			
DC-8GHz	±0.7	±0.7	±0.7	±1.0	±1.2			≤1.25
DC-12.4GHz	±1.0	±0.7	±1.0	±1.2	±1.5			≤1.35
DC-18GHz	±1.2	±1.0	±1.2	±1.5	±1.8			≤1.40
Impedence	50 Ohm							
Connector	N or SMA or DIN -male or female							
Average Power (option)	1-5W, 10W, 30W, 50W, 100W, 200W or more higher							
Temperature (°C)	-40 ~ +80 or -55 ~ +125							
IP Grade (option)	IP60 or IP65							
Color (option)	Black or Silver							



Coaxial DC-3G (2G) Dummy Loads/Termination Loads

Frequency	DC-3GHz						
VSWR	≤ 1.20:1						
Power	5w(2w)	10w	30w	50w	100w	200w	300w
Impedance	50 ohm						
Connector	N-type or DIN-type						
Temperature	-40~+125						
Humidity	5%-95%						



DC Blocks

Frequency	DC-3GHz
VSWR	≤ 1.20:1
Power	200W
Impedance	50 ohm
Connector	N-type
Temperature	-55~+125C
Intermodulation	-120dbC



Surge Protectors

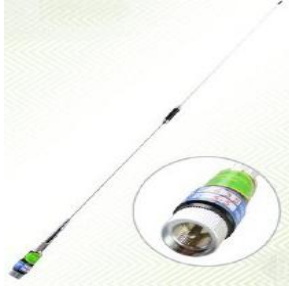
Frequency	DC-3GHz
VSWR	≤ 1.15:1
Insertion loss	≤ 0.2dB
Connector	N-F/N-F
Power	200W PEP
Discharge Voltage	DC230V±15%
Puls Voltage(1x40) us	1000V
Puls Current(1x40) us	6KA
Resistance at 100V	>10,000MΩ



Antenna for Vehicle Mobile Radio

No.	Model	Frequency (MHz)	Bandwidth (MHz)	Gain (dBi)	Max. Power Input Watts	Diameter of Chassis	Connector	Length	Net Weight
1	TAT-401	400~470	10~15	5.5	100	27mm	SL16-J	93CM	158g
2	TAT-7220S	144 & 430	6~12	2.15 & 3	100	18mm	SL16-J	43CM	110.6g
3	TAT-770R	144 & 430	5~12	2.15 & 5.5	70	20mm	SL16-J	98CM	145.2g
4	TAT-770H	144 & 430	5~12	2.15 & 5.5	70	20mm	SL16-J	99CM	142g
5	TAT-507	144 & 430	5~12	2.15 & 5.2	70	21.7mm	SL16-J	74CM	165g
6	TAT-R2	144 & 430	6~12	2.15 & 3	100	18mm	SL16-J	39CM	71g
7	TAT-506	144 & 430	5~12	2.15 & 5.2	100	21.7mm	SL16-J	65CM	144.2g
8	TCB-2702	27	3	2	150	26mm	SL16-J	71CM	257g
9	TCB-2906	29	3	2	150	26mm	SL16-J	105CM	277g
VSWR		≥ 1.5			Radiation		Omni		
Impedance		50Ohm			Lighting Protection		Direct Ground		
Polarization		Vertical			Radiating Element Material		Stainless Steel		

Model No: TAT-401



Model No: TAT-7220S



Model No: TAT-770R



Model No: TAT-770H



Model No: TAT-507



Model No: TAT-R2



Model No: TAT-506



Model No: TCB-2702



CB Radio use

Model No: TCB-2906



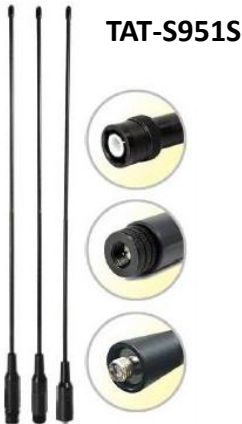
CB Radio use

Antenna for Two Way Radio System

Temstron P/N	TAT-SF20	TZJ-UV
Frequency Range (Dual Band)	136~174 / 400~470 MHz	136~174 / 400~470 MHz
Bandwidth	2 / 5 MHz	3/7 MHz
Impedance	50 ohm	50 ohm
VSWR	≤ 1.5	≤ 1.5
Gain	1.5 dBi	2.15 dBi
Polarization	Vertieal	Vertieal
Radiation	0mini	0mini
Lighting Protection	Direct Ground	Direct Ground
Input Power	10 Watt	10 Watt
Length	7 cm	18.2 cm
Connector	BNC/SMA-Male/SMA-Female/Motorola Connector	
Diameter ofChassis	14.6 mm	14.3 mm
Radiating Element Material	Copper (CU)	Copper (CU)
Net Weight	21.6 g	14.6 g

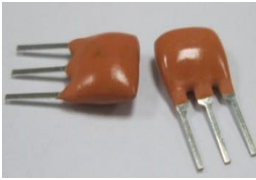


Temstron P/N	TAT-951S	TAT-771
Frequency Range (Dual Band)	144 / 430 MHz	144 / 430 MHz
Bandwidth	4 / 7 MHz	4 / 7 MHz
Impedance	50 ohm	50 ohm
VSWR	≤ 1.5	≤ 1.5
Gain	2.15 dBi	2.15 dBi
Polarization	Vertieal	Vertieal
Radiation	0mini	0mini
Lighting Protection	Direct Ground	Direct Ground
Input Power	10 Watt	10 Watt
Length	35 cm	38 cm
Connector	BNC/SMA-Male/SMA-Female/Motorola Connector	
Diameter ofChassis	14 mm	15.2 mm
Radiating Element Material	Copper (CU)	Copper (CU)
Net Weight	26.4 g	30 g



Temstron P/N	TAT-6900	TFT-U50
Frequency Range (Dual Band)	144 / 430 MHz	400~470 MHz
Bandwidth	4 / 7 MHz	6~12 MHz
Impedance	50 ohm	50 ohm
VSWR	≤ 1.5	≤ 1.5
Gain	2.15 dBi	3.5 dBi
Polarization	Vertieal	Vertieal
Radiation	0mini	0mini
Lighting Protection	Direct Ground	Direct Ground
Input Power	20 Watt	20 Watt
Length	14.3 cm	39 cm
Connector	BNC/SMA-Male/SMA-Female/Motorola Connector	
Diameter ofChassis	15 mm	13 mm
Radiating Element Material	Copper (CU)	Copper (CU)
Net Weight	28.2 g	37.8 g





FEATURES

1. Low Cost
2. FM Use
3. Low Profile
4. Excellent Temperature Stability
5. High Durability



FEATURES

1. Low Cost
2. FM Use
3. CHIP Type
4. Excellent Temperature Stability
5. High Durability

GENERIC SPECIFICATION

TT10.7 Series / TT10.7 Series Filter

Part Number	3dB Band Width.(KHz)	20dB Band Width (KHz)	Insert Loss (dB max)	Spurious Attenuation (9-12MHz) (dBmin)
TT10.7M Series of ceramic filter for FM receiver				
TT10.7MA5	280±50	650	6	-30
TT10.7MS2	230±50	600	6	-40
TT10.7MS3	180±50	520	7	-40
TT10.7MJ	150±50	400	10	-38
TT10.7MA10 Series of Ceramic Filter (Low -Loss Type)				
TT10.7MA5A10	280±50	590	2.5±2.0	-30
TT10.7MS2A10	230±50	520	3.0±2.0	-35
TT10.7MS3A10	180±50	470	3.5±1.5	-35
TT10.7MJA10	150±50	360	4.5±2.0	-35
Wide/Narrow Band-width Type TT10.7M Series of Ceramic Filter				
TT10.7MA19	350min	950	3.0±2.0	-20
TT10.7MA20	330±50	680	4.0±2.0	-30
TT10.7MHY	110±30	350	7.0±2.0	-30
TT10.7MFP	20min	95	6.0max	-24

TTCA10.7 Series / TTCV10.7 Series Filter

Part Number	3dB Band Width.(KHz)	20dB Band Width (KHz) max	Insert Loss (dB) max	Spurious Attenuation (9-12MHz) (dB) min
TTCA10.7MA5	280±50	650	6.0	30
TTCA10.7MS2	230±50	600	6.0	30
TTCA10.7MA5	280±50	590	3.0±2.0	35
TTCA10.7MS2	230±50	510	3.5±2.0	35
TTCA10.7MS3	180±40	470	4.0±2.0	35

FEATURES

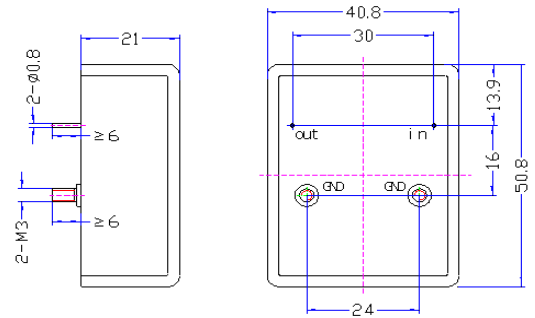
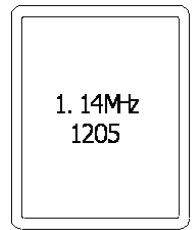
1. Low Cost
2. Communication Use
3. Low Profile
4. Excellent Temperature Stability
5. High Durability

TT U/W TTM U/W Series Filter

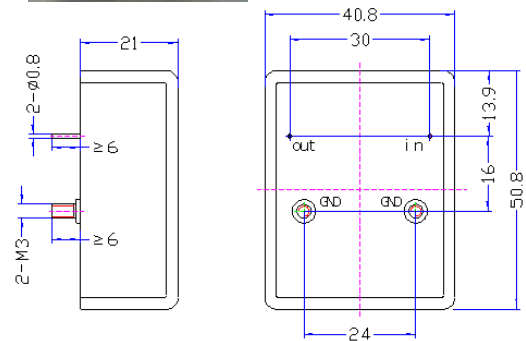
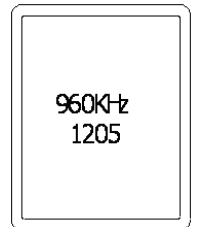


Part Number	Center Freq (KHz)	Insertion Loss (dB)max	Pass Band Ripple (dB)max	6dB Band Width (KHz)min	40dB Band Width (KHz)max (TT455 U)	50dB Band Width (KHz)max (TT455 W)	Stop Band Attenuation for±100KHz (dB)min	Input/ Output Impedance (Ω)
							TT455 U TT455 W	
TT455BU/W	TTM455BU/W	455±2.0	4.0	2	±15	±30	±30	28 40 1500
TT455CU/W	TTM455CU/W	455±2.0	4	2	±12.5	±24	±24	28 40 1500
TT455DU/W	TTM455DU/W	455±1.5	4	2	±10	±20	±20	28 40 1500
TT455EU/W	TTM455EU/W	455±1.5	6	2	±7.5	±15	±15	28 40 1500
TT455FU/W	TTM455FU/W	455±1.5	6	2	±6	±12.5	±12.5	28 40 2000
TT455GU/W	TTM455GU/W	455±1.5	6	2	±4.5	±10	±10	28 40 2000
TT455HU/W	TTM455HU/W	455±1.0	6	2	±3	±9	±9	28 40 2000
TT455IU/W	TTM455IU/W	455±1.0	6	2	±2	±7.5	±7.5	28 40 2000
TT455HTU/W	TTM455HTU/W	455±1.0	6	2	±3	±9	±9	35 60 2000

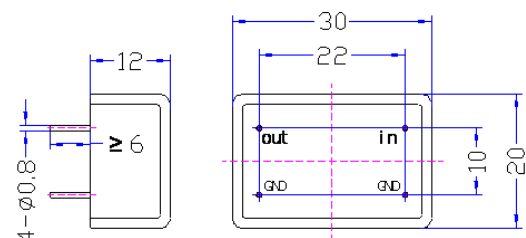
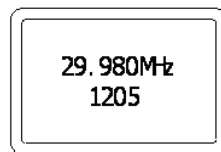
Parameters	
• Center Frequency (F_0)	1.14MHz
• Pass band (3dB Bandwidth)	3.0dB@ $F_0 \pm 1.5$ KHz Minimum
• Stop band (50dB Bandwidth)	50dB@ $F_0 \pm 4.0$ KHz Maximum
• Pass Band Insertion Loss	≤ 6.0 dB
• Pass Band Ripple	1.0dB Maximum
• Attenuation	50dB Minimum
• Operating Temperature Range	-10°C to +60°C
• Impedance	Input 10K Ohms; Output 10K Ohms
• Configuration	As Below (Size: 50.8×40.8×21mm)



Parameters	
• Center Frequency (F_0)	960KHz
• Pass band (3dB Bandwidth)	3.0dB@ $F_0 \pm 1.5$ KHz Minimum
• Stop band (45dB Bandwidth)	45dB@ $F_0 \pm 4.0$ KHz Maximum
• Pass Band Insertion Loss	≤ 6.0 dB
• Pass Band Ripple	1.0dB Maximum
• Attenuation	50dB Minimum
• Operating Temperature Range	-10°C to +60°C
• Impedance	Input 2.2K Ohms; Output 2.2K Ohms
• Configuration	As Below (Size: 50.8×40.8×21mm)



Parameters	
• Center Frequency (F_0)	29.980MHz
• Pass band (3dB Bandwidth)	3.0dB@ $F_0 \pm 70$ KHz Minimum
• Stop band (40dB Bandwidth)	40dB@ $F_0 \pm 160$ KHz Maximum
• Pass Band Insertion Loss	≤ 5.0 dB
• Pass Band Ripple	3.0dB Maximum
• Operating Temperature Range	-10°C to +60°C
• Impedance	Input 500 Ohms; Output 50 Ohms//22pf
• Configuration	As Below (Size: 30×20×12mm)



Applications: AM and FM IFTs, Amateur Radio, QRP Circuits, Toys, Audio System, and etc

Alternatives of TOKO , Smida, and other custom Coils

5mm TYPE 5P, 5PG, 5PA, 5PAG

Frequency Range: 5P, 5PG 0.2~2.0MHz, 5PA, 5PAG 0.1-1MHz

5P, 5PG High Frequency 1-15MHz

Inductance Range: 5P, 5PG 30-680uH

5P, 5PG High Frequency 1-40UH

5PA, 5PAG 100uH-4.5mH

TYPE: 5PNR, 332PN, 451AN



7mm TYPE 7P High Frequency

Frequency Range: 2-20MHz

Inductance Range: 1-82uH

Internal Capacitance Values: 5-100pF

TYPE: A119ANS, 119AC, 119FC, 119LC

7mm TYPE 7KL

Frequency Range: 1-120MHz

Inductance Range: 0.03-50uH

Internal Capacitance Values: 5~100pF

7mm TYPE 7PA

Frequency Range: 10-200kHz

Inductance Range: 1-25mH

Internal Capacitance Values: 10~6800pF

TYPE: 126ANS

7mm TYPE 7KM

Frequency Range: 2-120MHz

Inductance Range: 0.03-82uH

Internal Capacitance Values: 5~100pF

7mm TYPE 7PLA

Frequency Range: 10-200kHz

Inductance Range: 1-15mH

Internal Capacitance Values: 10-6800pF

TYPE: 284XNS

10mm TYPE 10PA

Frequency Range: 10-200kHz

Inductance Range: 1-56mH

TYPE: CLNS

10mm TYPE 10K

Frequency Range: 2-120MHz

Inductance Range: 0.08-82uH

Internal Capacitance Values: 5-100pF

10mm TYPE 10EZ

Frequency Range: 0.2-2MHz (10EZ)

2-15MHz (10EZ High Freq.)

Inductance Range: 1uH-2mH (10EZ)

2-55uH (10EZ High Freq.)

Internal Capacitance Values: 150-390pF (10EZ),

5-100pF (10EZ High Freq.)

12mm TYPE 12VX

Bias Oscillator Coils

Frequency Range: 10-200kHz

Inductance Range: 560uH-18mH

Ferrite Core



Remark: The Specification of the Replacement is subject to final confirmation which might be slight tolerance to the selection guide.

Applications: Maritime communication device, Satellite phone, Airborne Transceiver & Telecommunication equipment, and etc
Alternatives of TOKO , Smida, and other custom Coils

TYPE FSDV

For Reflow Soldering

Frequency Range: 0.2~15MHz

Inductance Range: 1uH~7mH

Q Approx: 60 (at 455kHz and 10.7MHz)

TYPE: 836AN, 836BN

TYPE 5CCB

For Reflow Soldering

Frequency Range: 10~150MHz

Inductance Range: 0.03~10uH

Q Approx: 50 (at 100MHz)

TYPE 5CCE

For Reflow Soldering

Frequency Range: 10~150MHz

Inductance Range: 0.05~2.7uH

Q Approx: 70 (at 100MHz)

TYPE 5CCD

For Reflow Soldering

Frequency Range: 0.1MHz-2MHz

0.1MHz-15MHz (High Freq)

Inductance Range: 1uH-1400uH

Unloaded Q : 30/65 (ref)

Inductance Variable Range : Lo $\pm$ 3 to 5% (ref)

TYPE: 614BN



Molded Coils (DIP & SMD)

TYPE MC120

Frequency Range: 30~150MHz

Inductance Range: 0.03~0.53uH

TYPE MC137

Frequency Range: 30~150MHz

Inductance Range: 0.02~0.4uH

TYPE MC141

Frequency Range: 30~150MHz

Inductance Range: 0.03~0.35uH

TYPE MC152

Frequency Range: 30~150MHz

Inductance Range: 29~142nH (without case)
27~94nH (with case)

Remark: The Specification of the Replacement is subject to final confirmation which might be slight tolerance to the selection guide.