



SYNERGY TELECOM PVT. LTD

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Synergy Telecom private limited

Synergy telecom p.(ltd) established in 2001, is leading manufacture, importer, and exporter of RF conectors, microwave and antennas. We also manufacture urge arrester and protectors. we are trading in coaxial and optical fiber products. our philosophy is to anticipate the market needs and to maintain an inventory of the most popular products falling under our business category . We have engineered place of excellance for improving our products quality. We primarily started its operation in telecom industry and in a short span of 15 years has grown as the largest stockiest for telecom products. With excellent strategy and determined hard work, synergy now look far into the future , driven by the vision of growing the usage of alternate energy and helping to save the planet for a bright future. Today solar energy is been seen as an eminent resource and synergy with its own positive energy is working with many solar epc manufacturing leader to make tis success.

Nowadays, mobile communication is rapidly developing, which brings great challenge to the network planning and optimization for the operators. From 2G to 3G ,now 4G and the next generation 5G, the data throughput is required faster and faster, which needs good DAS (Distributed Antenna System) solutions with high performance to guarantee. A Distributed Antenna System is made of a network of antennas and RF distribution network which are placed throughout the building to provide indoor coverage or placed at tower top to provide outdoor coverage.

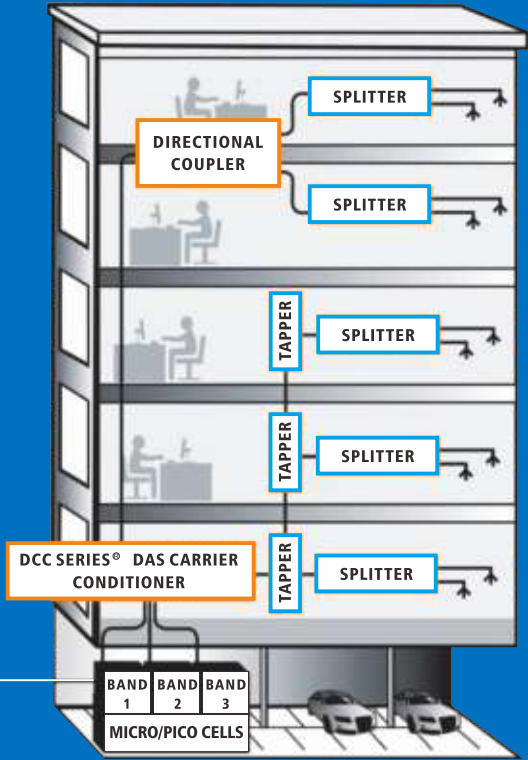
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RF products, N type, DIN type and 4.3-10 type connectors optional, are widely used in 2G/3G/4G wireless base station, indoor DAS, airport coverage and metro coverage etc. And they are designed to support all kinds of technologies worldwide, such as FM, TETRA, CDMA, GSM, DCS, UMTS, PCS, AWS, LTE, TD-LTE, WiMAX, WiFi and so on.

RF PASSIVE PRODUCTS



PASSIVE DAS SYSTEM
(LARGER BUILDING USING CELLULAR NETWORK)

Combiner



Diplexers	Band 1		Band 2					
	100-2170MHz		2500-2700MHz					
	1710-1880MHz		1920-2170MHz					
	698-960MHz		1710-2170MHz					
	1710-2170MHz		2300-2690MHz					
	380-960MHz		1710-2700MHz					
	698-862MHz		880-960MHz					
Triplexers	Band 1		Band 2		Band 3			
	806-960MHz		1710-1880MHz		1920-2170MHz			
	1710-2170MHz		2300-2390MHz		2500-2690MHz			
	380-960MHz		1710-1880MHz		1920-2170MHz			
Quadplexers	Band 1		Band 2		Band 3		Band 4	
	698-847MHz		880-960MHz		1710-1880MHz		1920-2170MHz	
	694-960MHz		1710-1880MHz		1920-2170MHz		2500-2690MHz	
	694-960MHz		1710-1880MHz		1920-2170MHz		2400-2690MHz	

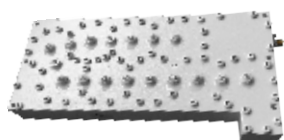
Filter

A filter is the device that has frequency selectivity of RF signals among mobile communication devices. It is mainly used to filter interference and noise wave of the receiving or transmission channels.

Product features:

- Low insertion loss, high insulation, good resistance against high power impact

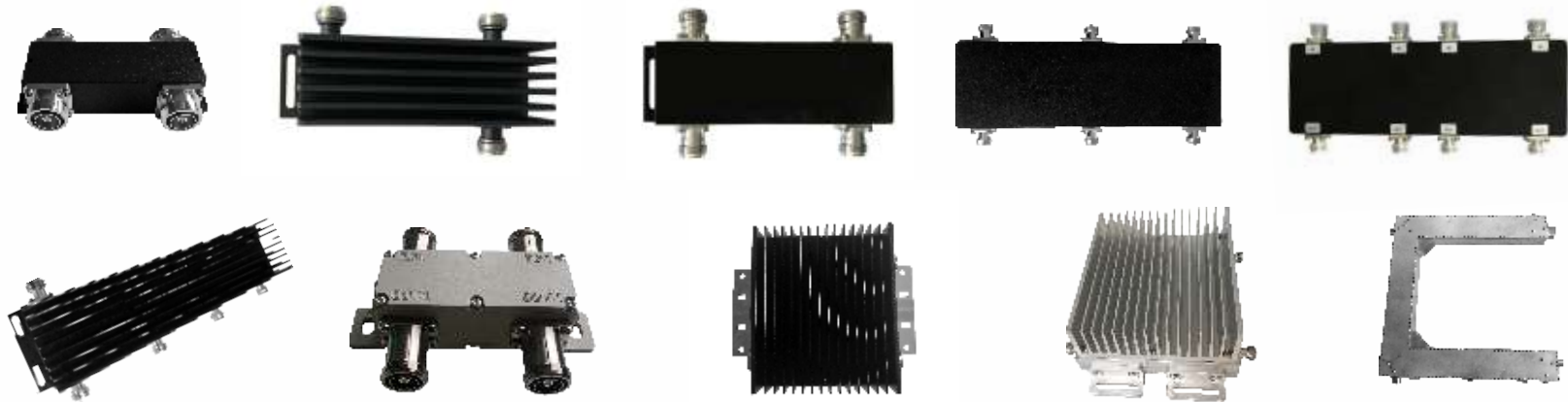
- Small volume, reasonably structured, highly reliable, good temperature stability
- Multiple medium technology such as TE mode and TM mode is applied in a mature manner, and there are multiple medium-related core patents
- The first pass yield in batch production and conformity of production is reliably high, which ensures that all the products are traceable



Specifications		
Frequency Range (MHz)	895-915	935-960
VSWR	≤1.25	
PIMD3 (dBc)	≤-150@2*43dBm	
PIMD5 (dBc)	≤-160@2*43dBm	
Insertion Loss (dB)	895.0-897.5MHz≤3.0	
	897.5-898.5 MHz≤1.1	
	898.5-960 MHz≤0.5	
Rejection(dB)	≥45@800-894MHz	
Power (W)	250 Watts Average, 3 KW peak	
Impedance (Ω)	50	
DC By Pass	Pass	
Lightning protection	3 kA, 10/ 350 μs pulse	
Working Temperature(C)	-25~+75	
Working Humidity (%)	0 - 95	
Applications	Indoor or Outdoor	
Waterproof grade	IP65	
Connector	7-16 DIN Female (ANT)	7-16 DIN Male (BTS)
Installation	Mounting Hole or Wall	

Hybrid Combiner

This 3 dB Hybrid combines same band signals into common out-puts with high isolation. Multi-band range for DCS,CDMA,GSM,WCDMA,PCS ,UMTS and LTE . With either N or 7/16 DIN connectors . Available for indoor /outdoor environments.

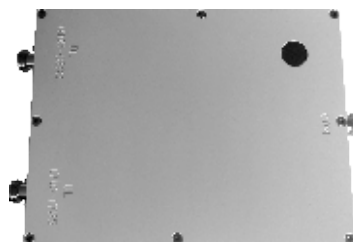


Product Type	Frequency(MHz)	Power handing (W)	Connector	PIM	VSWR	Insertion Loss(dB)	Impedance(Ω)
2:1 hybrid combiner(100W)	698-2700	100	N-F	NA	1.3	3.5	50
2:2 hybrid couplers(200W)	698-2700	200	Din-F	150	1.25	3.5	50
2:2 hybrid couplers(200W)	698-2700	200	N-F	150	1.25	3.5	50
3:3 matrix combiner(200W)	698-2700	200	N-F	150	1.3	6	50
4:1 matrix combiner (100W)	698-2700	100	N-F	NA	1.3	7	50
4:2 matrix combiner (100W)	698-2700	100	N-F	NA	1.3	7	50
4:2 matrix combiner (100W)	698-2700	100	DIN-F	NA	1.3	7	50
4:4 matrix combiner (200W)	698-2700	200	N-F	150	1.3	7	50
4:4 matrix combiner (200W)	698-2700	200	DIN-F	150	1.3	7	50
2:2 hybrid couplers(500W)	819-2700	500	DIN-F	-155	1.25	3.5	50
2:2 hybrid couplers(500W)	819-2700	500	N-F	-155	1.25	3.5	50
2:1 hybrid couplers(250W)	380-2700	250	N-F	NA	1.3	4	50
2:2 matrix combiner(1000W)	88-108	1000	(E70)(E110)	NA	1.1	6.5	50



Duplexers

RF Duplexer is pilot frequency duplex radio station, the main parts relay station, its function is to isolate the transmit and receive signal, guarantee the the receive and transmit can work at the same time. It is made of two groups of different frequency band stop filter, avoid the native emission signal transmission to the receiver.



	Rx Frequency	Tx Frequency	Connector
Duplexers	880-915MHz	925-960MHz	N or DIN type female
	1710-1785MHz	1805-1880MHz	N or DIN type female
	1920-1980MHz	2110-2170MHz	N or DIN type female
	2500-2570MHz	2620-2690MHz	N or DIN type female

	Input Port	Rx/Tx (MHz)
Input Frequency Bands*	GSM900	934-960/889-915
	GSM1800	1805-1830/1710-1735
	TD - LTE (F)	1885-1915
	TD - LTE (E)	2320-2370
	CDMA800	865-880/820-835
	LTE FDD1.8G	1860-1880/1765-1785
	LTE FDD2.1G	2110-2130/1920-1940
	GSM1800/LTE FDD1.8G	1890-1860/1735-1765
	WCDMA2100	2130-2170/1940-1980
Power Rating	200W per BES TRx port	
BTS(No. Of BTS Ports)	1 x TRx for duplex GSM900 1 x TRx for duplex GSM1800 1 x TRx for duplex TD - LTE (F) 1 x TRx for duplex TD - LTE (E) 1 x TRx for duplex CDMA800 1 x TRx for duplex LTE FDD1.8G 1 x TRx for duplex GSM1800/LTE FDD1.8G 1 x TRx for duplex WCDMA210	
No. Of Antenna Ports	2 x TRx	
Impedance	50Ω	
Pass band Ripple	≤1.5dB	
	≤5.5dB	
BRS TRX(Isolation Between BTS TRx Ports)	GSM1800-GSM1800/LTE FDD1.8G ≥25dB GSM1800-FDD1.8G ≥25dB -GSM1800/LTE FDD1.8G-LTE FDD1.8G ≥25dB WCDMA2100-LTE FDD2.1G ≥25dB LTE FDD1.8G-TD-LTE(F) ≥50dB LTE FDD2.1G-TD-LTE(F) ≥50dB Others ≥80dB	
VSWR	≤1.3	
PIM(2x43dBm inputs)	≤-150dBc in specified uplink bands at BTS TRx por	
RF Connectors	DIN-female (BTS and antenna ports) N-female (BTS and antenna ports)-Optional SMA - female (monitor port)	
Monitor Port	9 x input (-40±2dBc) & (2+2) x output (-40±2dBc)	
Operating Humidity	5 to 95% (relative)	
Operating Temperature	-40 to 55°C	
Weight	14.2kg (approx.)	
Dimensions	290x250x149(approx.,excluding connectors)	
Mounting	Wall mount, or floor standing	
Application	IP67	



Repeater



Items	Uplink		Downlink	
Frequency Range	806-824MHz		851-869MHz	
Center frequency adjustment step	100kHz		100kHz	
Bandwidth adjustable,default=18Mz	0.1-18MHz		0.1-18MHz	
Bandwidth adjustment step	100kHz		100kHz	
Output Power	20±2dBm		27±2dBm	
Max Gain	70±2dB		75±2dB	
Gain Range	40-70dB		45-75dB	
Ripple	≤6dB		≤6dB	
Input VSWR	≤2		≤2	
Max. Input Power Without Damage	-10dBm		-10dBm	
ATT step of 1dB	1-10dB	Δ ≤1dB	Δ ≤1dB	
	10-20dB	Δ ≤1dB	Δ ≤1dB	
	20-30dB	Δ ≤1.5dB	Δ ≤1.5dB	
ALC Active 10dB	Δ ≤2dB		Δ ≤2dB	
Out of Band Gain	±600kHz	≤40dB	≤45dB	
	±1MHz	≤35dB	≤40dB	
	±5MHz	≤35dB	≤40dB	
Intermodulation Product	≤45dBc		≤45dBc	
Spurious Emission	9kHz~1GHz	≤-36dBm	≤-36dBm	
	1GHz-12.75GHz	≤-30dBm	≤-30dBm	
Noise Figure@max. gain	≤8dB		≤8dB	
Time Delay	≤8μs		≤8μs	
Alarm	ALC not Active	-	Blue	
	ALC Active 5-10dB	-	Orange	
	ALC Active 15-20dB	-	Red	
	broken	No Light		

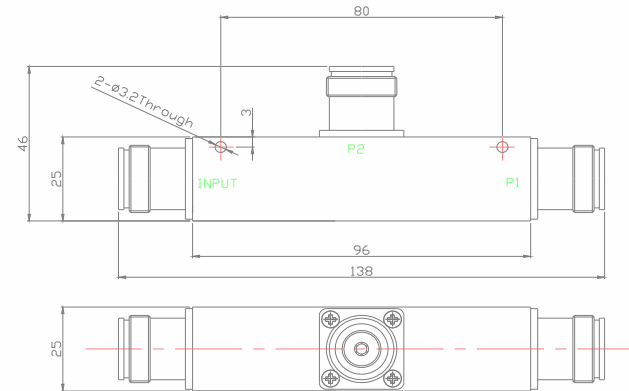
	Self-excitation	Red flashes
	Low input signal	Blue flashes
Run	normal	Blue
	Self-excitation	Red
Power Supply	AC 99-240V to 12V 3A	
DC Power Backup	Support auto switch +12VDC→+24VDC Power supply when AC power failures	
Power Consumption	≤23W	
Dimensions	290mm x 195mm x 82mm	
Weight	3.5kg	
RF Connector	N-Female	
Environment Conditions	IP65	
Humidity	≤90%	
Operating Temperature	-30°C~+55°C	



Model	Operating Band	UL(MHz)	DL(MHz)	Output Power(dBm)
ST25FS-WCDMA	B1	1920-1980	2110-2170	10, 17, 20, 25
ST25FS-PCS	B2	1850-1910	1930-1990	10, 17, 20, 25
ST25FS-DCS	B3	1710-1785	1805-1880	10, 17, 20, 25
ST25FS-AWS	B4	1710-1755	2110-2155	10, 17, 20, 25
ST25FS-CDMA	B5	824-849	869-894	10, 17, 20, 25
ST25FS-B7	B6	2500-2570	2620-2690	10, 17, 20, 25
ST25FS-EGSM	B7	880-915	925-960	10, 17, 20, 25
ST25FS-B20	B8	832-862	791-821	10, 17, 20, 25
ST25FS-GSM	GSM	890-915	935-960	10, 17, 20, 25
ST25FS-IDEM	B27	806-824	851-869	10, 17, 20, 25
ST25FS-B12	B12	699-716	729-746	10, 17, 20, 25
ST25FS-B13	B13	777-787	746-756	10, 17, 20, 25

Tapper

Unequal Power Dividers utilize a unique airline distributed capacitor construction that provides the lowest insertion loss ,input VSWR,high power ,low PIM performance . Mounting bracket and screws are supplied for easy wall mounting applications .



Frequency Range(MHz)					380-960&1710-2700					
Variants	3dB	5dB	6dB	7dB	8dB	10dB	13dB	15dB	20dB	30dB
Main/Branch(dB)	-1.8/-4.8	-1.3/-6.1	-1/-7	-0.8/-7.8	-0.7/-8.6	-0.4/-10.4	-0.2/-13.2	-0.1/-15.1	-0.1/-20.1	-0.1/-30.1
Flatness(dB)	±1			±1.5			±2			
Input VSWR	<1.4			<1.3						
PIM(dBc)	<-150@2x+43dBm									
Power Handling(W)	200 Avg,2000 Peak									
Environmental Specifications										
Operature Temperature(°C)	-25--+65									
Humidity(%)	0 to 100									
Application	IP65									
Mechanical Specifications										
Connectors	Female, 4.3-10,50Ω									
Mounting Options	Mouting Hole									
Color	Black									

Power splitters are passive devices for cellular band in Intelligent Building System (IBS), which are required to split/divide the input signal into multiple signals equally at separate output ports to enable balancing-out the power budget of the network.

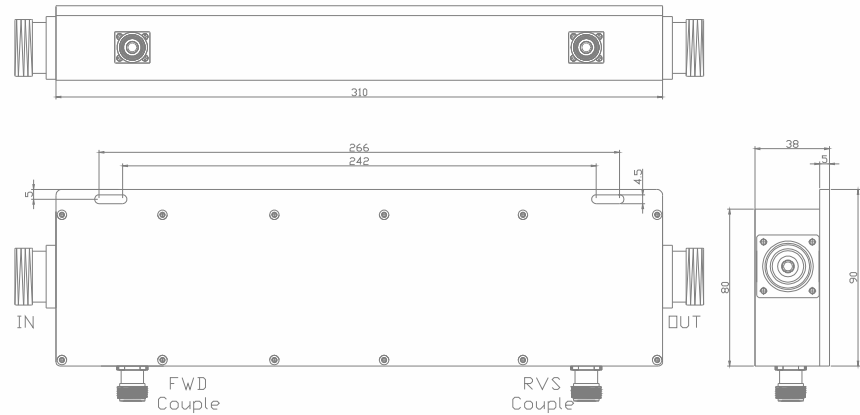
Power Splitter



Electrical Specifications												
Frequency Range	698-2700MHz(Micro strip)					698-2700MHz			380-2700MHz			
Split Way	2	3	4	6	8	2	3	4	2	3	4	
VSWR	≤1.3: 1					≤1.25: 1			≤1.25: 1			
Insertion Loss(dB)	≤0.4	≤0.5	≤0.5	≤1.1	≤1.2	≤3.3	≤5.2	≤6.4	≤3.3	≤5.2	≤6.4	
Split Loss(db)	≤3.0	≤4.8	≤6.0	≤7.8	≤9.0	/	/	/	/	/	/	
In-band Ripple(dB)	/	/	/	/	/	≤0.3	≤0.4	≤0.5	≤0.3	≤0.3	≤0.3	
Average Power(W)	50					200/300/500			200/300/500			
3 rd Order IMD(dBc)	≤-150/-155/-160@2x43dBm					≤-155@2x43dBm			≤-155@2x43dBm			
Impedance(Ω)	50		50			50			50			
Connectors Type	DIN or N-Female		DIN or N-Female			DIN or N-Female			N-Female			
Operation Temp.(°C)	-35→+65					-20→+55			-20→+55			
Application	Indoor or Outdoor		Indoor or Outdoor			Indoor or Outdoor			Indoor or Outdoor			
Finish	Black Plated		Black Plated			Black Plated			Black Plated			



Bidirectional Coupler



Frequency Range(MHz)	870-930	2400-2500
Coupling(dB)	40±1	40±1
Insertion loss(dB)	≤0.5	≤0.5
Directivity(dB)	≥25,30 typ.	≥25,30 typ.
VSWR	≤1.3	≤1.3
Power Handling(W)	2000,Avg.	1000,Avg.
Connectors	IN/OUT,DIN-F,50Ω,Couple,N-F,50Ω	IN/OUT,DIN-F,50Ω,Couple,N-F,50Ω
Operating Temperature(°C)	-20~+60	-20~+60
Application	Indoor	Indoor
Colour	Black	Black

Directional coupler is widely used in cellular communication system, it could make the allocation of signal power according to a certain proportion. Directional couplers are mainly used in mobile communication and broadcast systems, or as a measuring device for coupling out signals for monitoring they are the key components in in-building systems. The lightweight design allows easy attachment to a wall using the supplied bracket.



Electrical Specifications												
Coupling(dB)	5	6	7	8	10	12	15	20	25	30	35	40
Attenuation(698-2700)	±0.8					±1			±1.2	±1.2	±1.2	±1.5
Insertion Loss(dB)	≤2.1	≤1.65	≤1.3	≤1.1	≤0.75	≤0.6	≤0.4	≤0.3	≤0.2	≤0.2	≤0.2	≤0.2
Frequency Range	698-2700MHz											
VSWR	≤1.22											
Directivity(dB)	≥20										≥18	
Average Power(W)	≤200											
3rd Order IMD(dBc)	≤-120/-140/-150@2X43dBm											
Impedance(Ω)	50											
Connectors Type	DIN or N-Female											
Operating Temperature(°C)	-20~+55											
Application	For Indoor or Outdoor Use											
Finish	Black Plated											

Dummy Load N, DIN type

Load refers to the electronic components connected to the ends of the two ends of the electric energy consumed in the circuit. It is a device that uses electricity to work, and it is called "electrical appliances". The function of the load is to change the electrical energy into other forms of energy.



Electrical Specifications						
Power	2W	5W	25W	50W	100W	200W
Frequency Range	DC-3GHz					
Impedance(Ω)	50					
VSWR	$\leq 1.2:1$					
PIM3(dBc)	$\leq -120@2X33dBm$			$\leq -105@2X43dBm$		
PIM5(dBc)	$\leq -145@2X33dBm$			$\leq -120@2X43dBm$		
Connectors Type	N-Male,N-Female,DIN-Male,DIN-Female					
Operating Temp.($^{\circ}C$)	-20~+55					
Humidity	$\leq 95\%$					



Low PIM Dummy Load N, DIN type

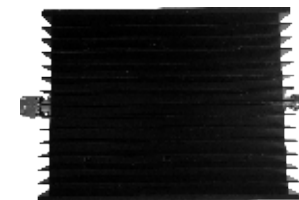
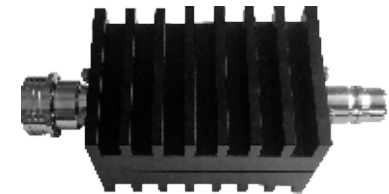
Load refers to the electronic components connected to the ends of the two ends of the electric energy consumed in the circuit. It is a device that uses electricity to work, and it is called "electrical appliances". The function of the load is to change the electrical energy into other forms of energy.



Electrical Specifications			
Power	50W	100W	200W
Frequency Range	DC-3GHz		
Impedance(Ω)	50		
VSWR	$\leq 1.25:1$		
PIM3(dBc)	$\leq -150@2X33dBm$		
PIM5(dBc)	$\leq -160@2X33dBm$		
Connectors Type	N-Male,N-Female,DIN-Male,DIN-Female		
Operating Temp.($^{\circ}C$)	-20~+55		
Humidity	$\leq 95\%$		

Attenuator

Attenuator is a provides attenuation of electronic components and widely used in electronic equipment, its main purpose is: (1) the size of signal adjusting circuit; (2) in the comparative method for measuring circuit, available to direct the measured network attenuation values; (3) to improve the impedance matching, if certain circuit requirements have a relatively stable load impedance, in the circuit with the actual load impedance is inserted between a attenuator, able to buffer impedance changes.

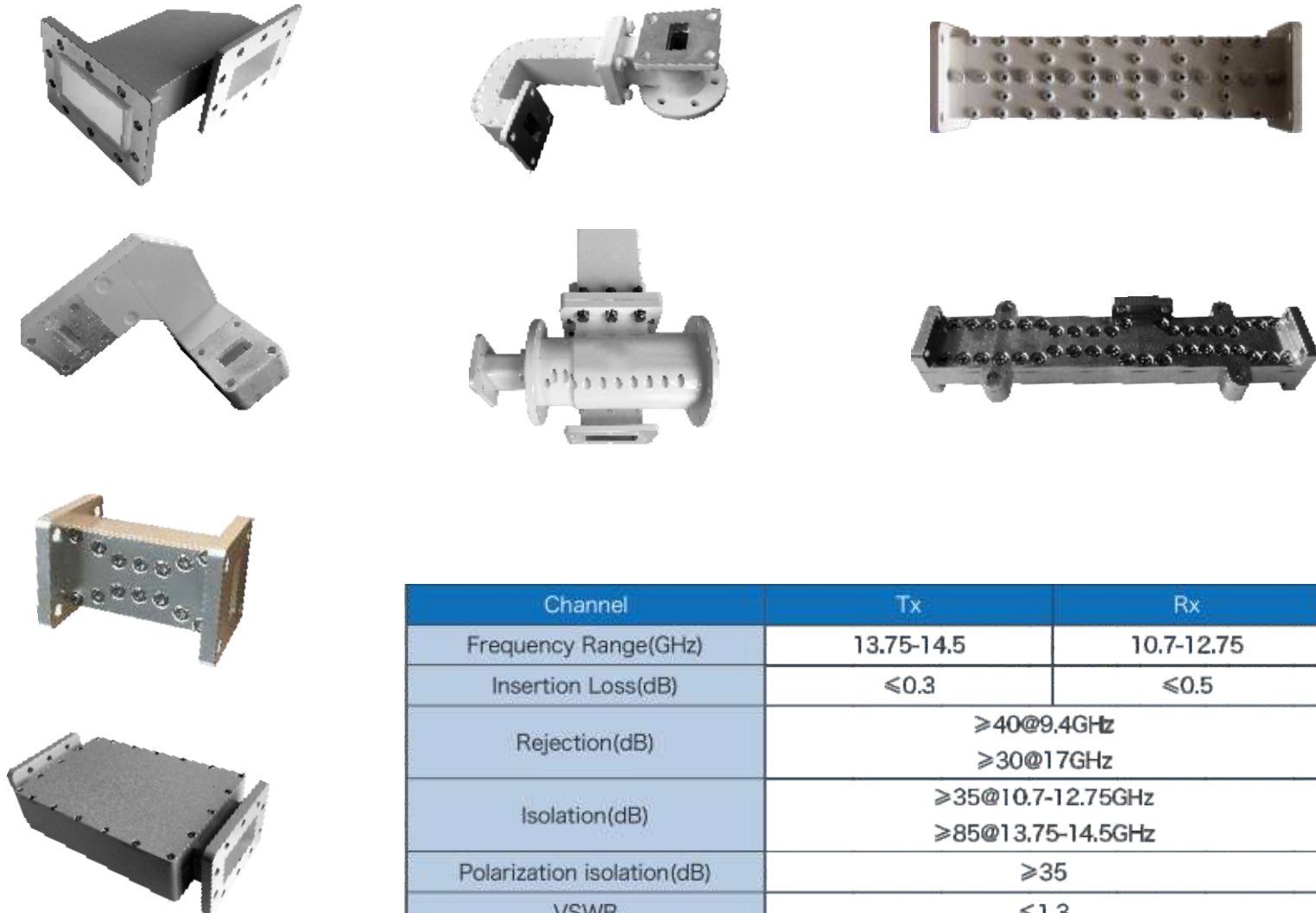


Electrical Specifications					
Power	5W	25W	50W	100W	200W
Frequency Range	DC-3GHz				
Attenuation Value(dB)	3/6/10/15/20/30				
In-band Ripple(dB)	$\leq 0.3/\leq 0.5/\leq 0.7/\leq 0.8/\leq 1.0/\leq 1.2$				
Impedance(Ω)	50				
VSWR	$\leq 1.2:1$				
PIM3(dBc)	$\leq -120@2X33dBm$		$\leq -105@2X43dBm$		
PIM5(dBc)	$\leq -145@2X33dBm$		$\leq -120@2X43dBm$		
Connectors Type	N-Male,N-Female				
Operating Temp.($^{\circ}C$)	$-20\rightarrow+55$				
Humidity	$\leq 95\%$				



Electrical Specifications					
Power	5W	25W	50W	100W	200W
Frequency Range	DC-3GHz				
Attenuation Value(dB)	3/6/10/15/20/30				
In-band Ripple(dB)	$\leq 0.3 / \leq 0.5 / \leq 0.7 / \leq 0.8 / \leq 1.0 / \leq 1.2$				
Impedance(Ω)	50				
VSWR	$\leq 1.2:1$				
PIM3(dBc)	$\leq -155 @ 2X43dBm$				
Connectors Type	N-Male, N-Female				
Operating Temp.($^{\circ}C$)	-30--+65				
Humidity	$\leq 95\%$				

Waveguide

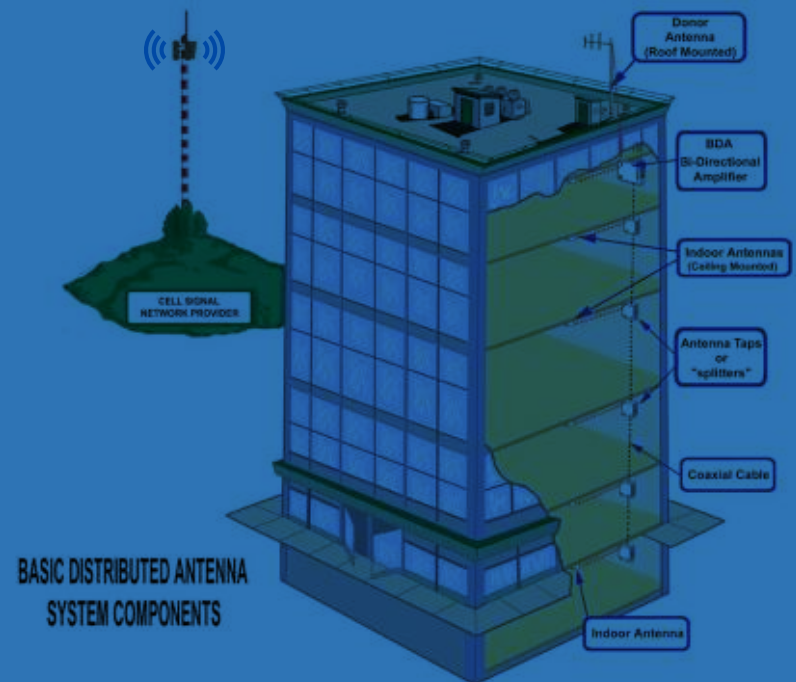


Channel	Tx	Rx
Frequency Range(GHz)	13.75-14.5	10.7-12.75
Insertion Loss(dB)	≤0.3	≤0.5
Rejection(dB)	≥40@9.4GHz ≥30@17GHz	
Isolation(dB)	≥35@10.7-12.75GHz ≥85@13.75-14.5GHz	
Polarization isolation(dB)	≥35	
VSWR	≤1.3	
Colour	White	

ANTENNA SYSTEM

epoch of IoT with our

antenna products to offer our customer solution for signal coverage, and our antenna has broad and deep product offerings in LTE, GSM, CDMA, Cellular, ISM, TETRA, Wimax and Wireless LAN frequency bands. We feel proud of our aggressive pace of innovation and patenting strategy. Our R&D management has been proved highly successful and as a result we obtained lots of patents through self developed programs. You can require bespoke designs tailored to your project. Due to superior quality and stable performance



Das Antennas

698—2700MHz-150dBc@2x20W

It is used for indoor distributed system to respond to the depth that it is impossible for outdoor macro station to cover. It is the most common indoor distributed system product, characterized by single polarization, full band and small gain. It is distributed based on point positions designed according to the plan made on a reasonable basis. Common antennas include omnidirectional/ directional antenna, wall-mounted antenna, log periodic antenna, and so on.



Model	Freq(MHz)	Gain(dBi)	VSWR	HBW(°)	VBW(°)	Pol	Dimensions(mm)
ST-698/2700-3-LP	698-960/1710-2700	2/4	≤1.8/≤1.5	360	90/55	V	∅ 204x115
ST-698/2700S-3A-LP	698-960/1710-2700	3/4	≤1.8	360	90/55	V/V	∅ 215x47
ST-698/2700-7-65A-LP	698-960/1710-2700	7/9	≤1.8/≤1.6	90/65	65/60	V	165x155x50
ST-698/2700-9-65A-LP	698-960/1710-2700	7/9	≤1.8	78/65	70/55	±45	315x197x70



Omni Antennas

698-2700MHz



Model	Freq(MHz)	Gain(dBi)	VSWR	HBW(°)	VBW(°)	Pol	Dimensions(mm)
ST-698/2700S-3	698-960/1710-2700	3	$\leq 1.8/\leq 1.5$	360	85/55	H/V	φ 182x123
ST-698/2700-3A	698-960/1710-2700	2/3	$\leq 2.3/\leq 1.5$	360	90/55	V	φ 165x90
ST-698/2700-3T	698-960/1710-2700	2/3	$\leq 1.8/\leq 1.5$	360	90/55	V	φ 186x86
ST-698/2700-3M	698-960/1710-2700	2/3	$\leq 1.8/\leq 1.5$	360	95/55	V	φ 186x86

Omni Antennas

698—2700MHz



Model	Freq(MHz)	Gain(dBi)	VSWR	HBW(°)	VBW(°)	Pol	Dimensions(mm)
ST-698/2700-3	698-960/1710-2700	3/4	≤1.5	360	85/50	V	∅ 100x130
ST-698/2700-4A	698-960/1710-2700	4	≤1.8	360	65/45	V	190x66x66
ST-698/2700-4	698-960/1710-2700	4	≤1.8	360	65/45	V	∅ 763x190
ST-698/2700-4M	698-960/1710-2700	4	≤1.8	360	65/45	V	∅ 763x250



Omni Antennas

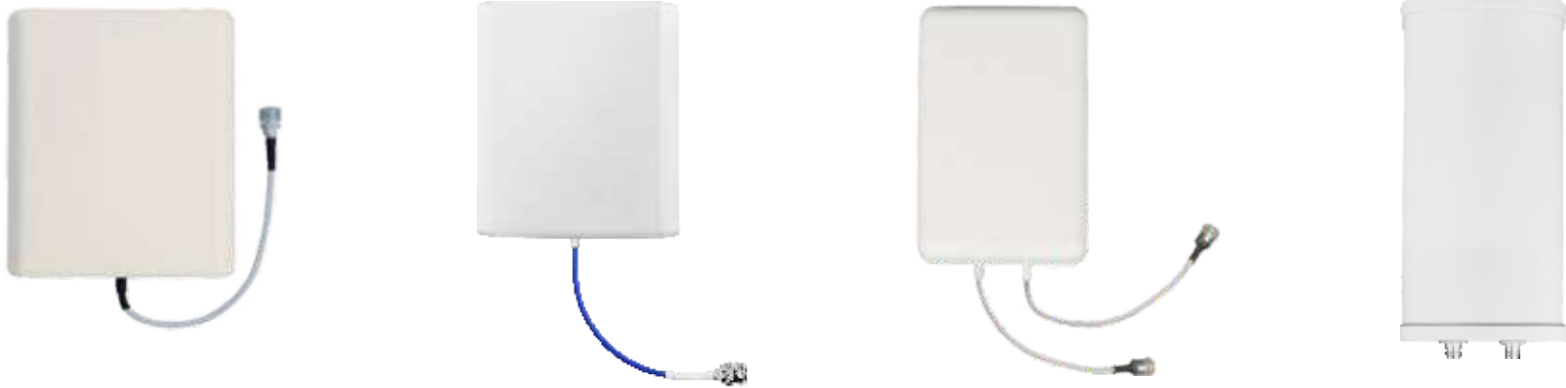
698—2700MHz



Model	Freq(MHz)	Gain(dBi)	VSWR	HBW(°)	VBW(°)	Pol	Dimensions(mm)
ST-698/2700-4D	698-960/1710-2700	3/4	≤2.5	360	57/45	V	φ 20x1000
ST-698/2170-5	698-960/1710-2170	4/5	≤3.0/≤2.0	360	50/35	V	φ 20x730
ST-698/2700S-5	698-960/1710-2700	3/5	≤2.5/≤2.0	360	55/40	V/V	φ 63x380
ST-698/2700-6	698-960/1710-2700	4/6	≤1.8	360	16	V	φ 63x650

Panel Antennas

698—2700MHz



Model	Freq(MHz)	Gain(dBi)	VSWR	HBW(°)	VBW(°)	Pol	Dimensions(mm)
ST-698/2700-7-65A	698-960/1710-2700	7/9	≤1.8/≤1.6	90/65	65/60	V	165x155x50
ST-698/2700-7-65	698-960/1710-2700	6/8	≤1.8/≤1.5	98/65	60/55	V	210x180x43
ST-698/2700S-8-65	698-960/1710-2700	6/8	≤2.0/≤1.8	65/55	60/50	V/±45	260x170x60
ST-698/2700S-10-65	698-960/1710-2700	8/10	≤2.0/≤1.8	65/60	60/50	±45	330x280x130



LPDA Antennas

698—2700MHz



Model	Freq(MHz)	Gain(dBi)	VSWR	HBW(°)	VBW(°)	Pol	Dimensions(mm)
ST-698/2700-9	698-960/1710-2700	8/9	≤1.8/≤1.5	90	60	V	294x210x65
ST-698/2700-11	698-960/1710-2700	10/11	≤2.0/≤1.5	75/65	60/50	V	450x210x65
ST-698/2700-14	698-960/1710-2700	12/14	≤2.5/≤1.8	55/42	46/34	V	1240

Omni Antennas

2.4/5.8GHz



Model	Freq(MHz)	Gain(dBi)	VSWR	HBW(°)	VBW(°)	Pol	Dimensions(mm)
ST-2400-5	2400-2500	5	≤1.5	360	30	V	∅ 20x300
ST-2400-10	2400-2500	10	≤1.5	360	9	V	∅ 20x1000
ST-2400-12	2400-2500	12	≤1.5	360	7	V	∅ 38x1100
ST-5800-8	5150-5850	8	≤2.0	360	17	V	∅ 20x350
ST-5800-12	5150-5850	12	≤2.0	360	7	V	∅ 20x760



LPDA Antennas

698—2700MHz



Model	Freq(MHz)	Gain(dBi)	VSWR	HBW(°)	VBW(°)	Pol	Dimensions(mm)
ST-2400-9-65	2400-2500	9	≤1.5	65	55	V	140x120x39
ST-2400-14-30	2400-2500	14	≤1.5	35	33	V	190x190x30
ST-2400-16-25	2400-2500	16	≤1.5	23	20	V	305x305x30
ST-5800-12-65	5150-5850	12	≤1.8	65	32	V	140x120x39
ST-5800-16-25	5150-5850	16	≤1.8	25	23	V	190x190x30
ST-5800-21-12	5150-5850	21	≤1.8	12	11	V	305x305x30

MIMO Antennas

2.4/3.5/5.8GHz



Model	Freq(MHz)	Gain(dBi)	VSWR	HBW(°)	VBW(°)	Pol	Dimensions(mm)
ST-2400S-9-65	2400-2500	9	≤1.5	65	54	H/V	140x120x40
ST-2400S-16-25	2400-2500	16	≤1.8	25	11	H/V	305x305x30
ST-2400S-18-22	2400-2500	18	≤1.5	18	17	H/V	395x365x39
ST-3500S-12-65	3400-3600	12	≤2.0	65	36	H/V	140x120x40
ST-3500S-14-35	3400-3600	14	≤2.0	38	35	H/V	190x190x30
ST-5800S-14-30	5150-5850	14	≤1.8	35	33	H/V	140x120x40
ST-5800S-14-35	5150-5850	14	≤1.8	34	32	H/V	120x120x40
ST-5800S-18-20	5150-5850	18	≤2.0	18	17	H/V	190x190x30
ST-5800S-20-16	5150-5850	20	≤2.0	16	15	H/V	305x305x30
ST-5800S-22-12	5150-5850	22	≤2.0	12	11	H/V	395x365x39



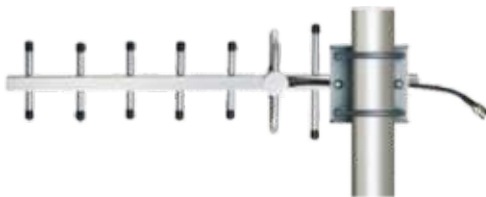
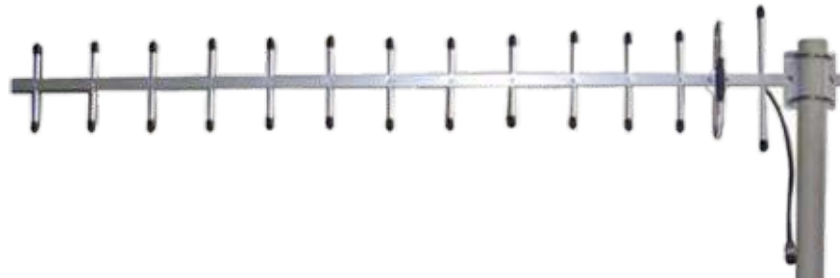
MIMO Antennas

2.4/3.5/5.8GHz



Model	Freq(MHz)	Gain(dBi)	VSWR	HBW(°)	VBW(°)	Pol	Dimensions(mm)
ST-2400S-12-65	2400-2500	12	≤1.5	65	30	H/V	260x170x60
ST-2400S-14-65	2400-2500	14	≤1.5	65	17	H/V	460x138x35
ST-2400S-16-120	2400-2500	16	≤1.5	120	8	H/V	970x180x90
ST-2400S-17-90	2400-2500	17	≤1.5	90	8	H/V	970x180x90
ST-2400S-18-65	2400-2500	18	≤1.5	65	8	H/V	970x180x90
ST-5800S-15-65	5150-5850	15	≤2.0	65	16	H/V	260x170x60
ST-5800S-17-65	5150-5850	17	≤2.0	63	8	H/V	460x138x35
ST-5800S-17-90	5150-5850	17	≤2.0	90	8	H/V	540x110x55
ST-5800S-18-65	5150-5850	18	≤2.0	65	8	H/V	540x110x55

Yagi Antennas

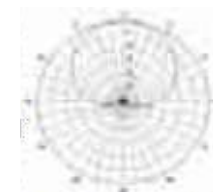


Model	Freq(MHz)	Gain(dBi)	VSWR	HBW(°)	VBW(°)	Pol	Dimensions(mm)
ST-800/900-7-4	806-960	7	≤1.5	85	60	V	400
ST-800/900-14-14	806-960	14	≤1.5	35	32	V	1300
ST-1710/2170-10-7	1710-2170	10	≤1.5	58	50	V	410
ST-1710/2170-14-14	1710-2170	14	≤1.5	33	30	V	685



820-960/1710-2170/1710-2170MHz

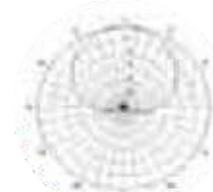
Electrical parameter			
Frequency Range(MHz)	820-960	1710-2170	1710-2170
Gain(dBi)	17	18	18
Horizontal Beam Width(°)	65±5	65±5	65±5
Vertical Beam Width(°)	7±1	6±1	6±1
Electrical Downtilt(°)	0-8	0-8	0-8
VSWR	≤1.5: 1		
Isolation between Ports(dB)	≥30		
Cross Polarization Ratio (dB)	≥15;±60° ≥10		
Upper Sidelobe Suppression(dB)	≥16		
Null-Fill(dB)	N/A		
Front to Back Ratio(dB)	≥25		
Polarization	±45°		
Input Maximum CW Power(W)	250		
PIMD 3th	≤-107dBm(@20W)		
Impedance (Ω)	50		
Input Connector	6 x 7/16DIN- Female		
Other Parameter			
Dimensions of Antenna(mm)	2550x325x132		
Weight of Antenna(kg)	28		
Weight of Mounting Kits(kg)	5.3		
Install Position Adjustment(°)	Vertical 0-10		
Temperature(°C)	40 ~+60		
Max Wind Speed(m/s)	60		
Radome Material	Plastic or FRP		
Diameter of Installation Pole(mm)	Φ80-Φ114		



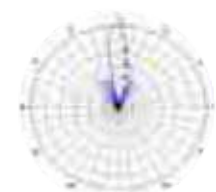
820-960



820-960



1710-2170



1710-2170

The background of the image is a futuristic cityscape. A large, glowing blue dome structure covers the city, with several bright light sources on its surface. The sky is a deep blue, filled with numerous small, white, star-like particles. The city below is densely packed with buildings, and the overall atmosphere is one of advanced technology and urban development.

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