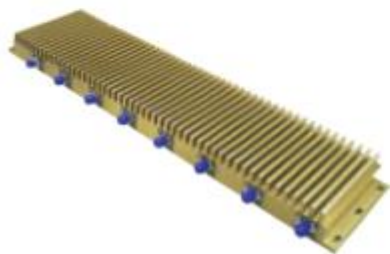


Serialization  
Standardization  
Customization

## ***Manufacturer***

*of microwave, millimeterwave RF components,  
modules and systems.*



Power Amplifier |



PIN Switch |



Low Noise Amplifier | +

## COMPANY PROFILE

**MANUFACTURER  
OF MICROWAVE,  
MILLIMETERWAVE  
RF COMPONENTS,  
MODULES AND  
SYSTEMS.**

**A**mplifier

**20** years +

**E**well  
quipped

Yingtron Microwave Electronic Co., Ltd specialized in design, manufacture and distribute high quality microwave communication products, including Amplifier, PIN Switch, Attenuator, Phase Shifter, Filter, Power Divider and Microwave RF Module, which are widely used in the fields of Civilian Communications, Military Radar, Electronic Countermeasures, Satellite Receiving, etc.

Power Amplifier and Low Noise Amplifier are our competitive Products, the frequency ranging from 10MHz to 50GHz, and excellent linearity.

YingTron owns a group of experienced design and development team, who have over 20-year working experience in microwave RF industry.

Our company is equipped with a batch of first-class manufacturing equipment, so that the stability and reliability of production can be well managed.





## WORKSHOP

YingTron Microwave is equipped with whole sets of advanced facilities: gold wire bonder, R&S debugging equipment, pulsed laser welder, high and low temperature tester etc.

Meanwhile, the micro packaging production line is also equipped, which is able to assemble, utilizing the Gold wire bonder to install the microwave and millimeter wave products in a class-10000 below clean room, to ensure the smooth progress of the production and the strict quality control.



Clean Room



Pulsed Laser Welder



# PRODUCT CATEGORY

Yingtron has a variety of excellent RF microwave product lines, there are both basic module of serialization and various multifunctional modules and complete machines, with frequency range covering **DC-60GHz**.

## Active Components

Power Amplifier | PIN Switch | Low Noise Amplifier | Attenuator | Detector | Limiter | +

## Passive Components

Power Divider | Coupler | Filter | Hybrid | +

## Microwave RF Module

PIN Control Module | T&R Module | +



# VOLUME PRODUCTION

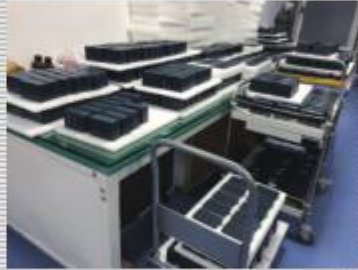
POWER AMPLIFIER



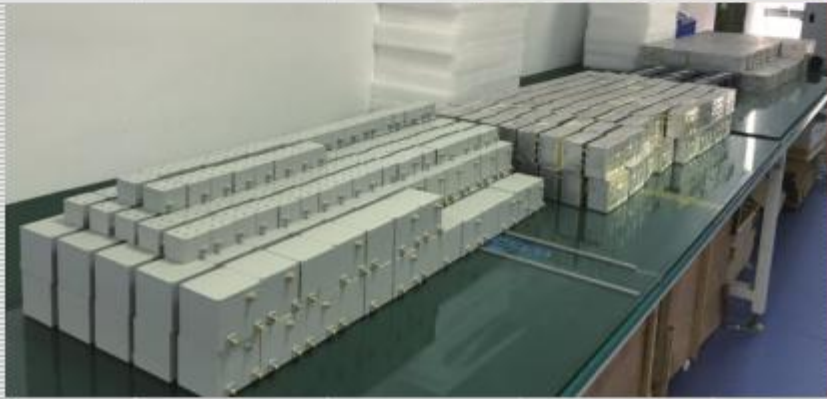
LOW NOISE AMPLIFIER



PIN SWITCH



FILTER



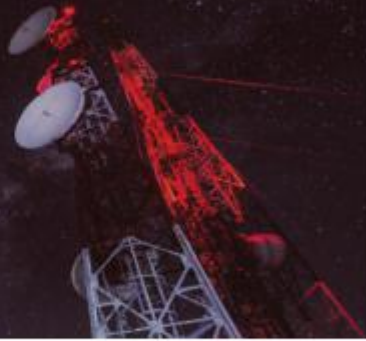
ATTENUATOR



Ka DOWN CONVERTER

## BROADBAND POWER AMPLIFIER

High Power up to CW P-1 500W  
Ultra-Broadband  
High Frequency up to 50GHz  
High Efficiency up to 50%  
Excellent Linearity  
Extraordinary harmonic control



1-6GHz 300W CW



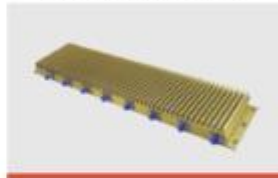
6-18GHz 50W CW



1-6GHz 50W CW



0.1-6GHz 10W CW



1-4GHz 20W CW



4-8GHz 10W CW

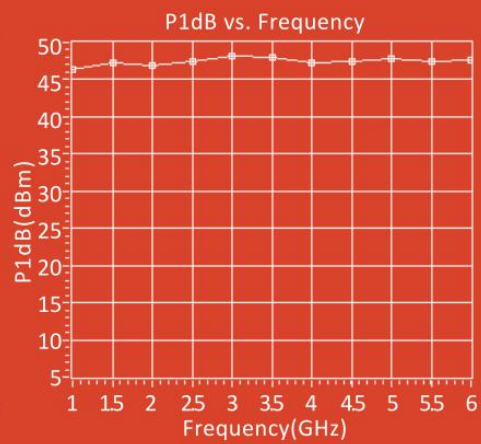
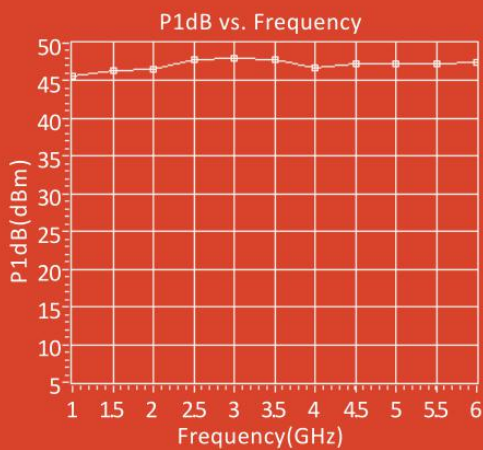




## Data Sheet (partial)

Part Number	Freq.	Gain	Gain Flatness	P1dB	Past	Power Supply (VDC)
	(GHz)	(dB)	(±dB)	(dBm)	(dBm)	(A)
YCPA3238GA10W	32~38	50	3	40	41	12/10
YCPA1721GA2W	20~21	35	2.5	33	34	12/1.6
YCPA1840GA0.5W	18~40	32	2.5	27	28	12/1.5
YCPA1840GA0.3W	18~40	32	2.5	25	27	12/1.5
YCPA1721GA1W	17~21	35	2.5	30.5	32	12/1.3
YCPA1013GA2W	10~13	35	2	32	33	28/0.7
YCPA045055GA50W	4.5~5.5	50	1	45	47	28/6
YCPA0408GA4W	4~8	13	1	35	36	28/0.6
YCPA0208GA50W	2~8	45	3	45	47	28/4
YCPA0206GA50W	2~6	50	3	46	47	28/4
YCPA0106GA50W	1~6	50	4	45	47	28/4
YCPA0106GA100W	1~6	50	4	49	50	28/7
YCPA0106GA250W	1~6	55	5	53	54	28/30
YCPA00706GA15W	0.7~6	40	3	40	41	28/1
YCPA001005GA400W	0.1~0.5	55	3	55	56	48/7
YCPA001005GA100W	0.1~0.5	50	3	48	50	48/1.5
YCPA000005GA80W	0.02~0.5	47	4	47	48	48/1.5

## Curve Info : 2-6GHz 50W Power Amplifier





# LOW NOISE AMPLIFIER

Ultra Broadband  
Low Noise Figure up to 0.5dB  
High Frequency up to 50GHz  
High Linearity  
High Gain up to 60dB  
Hermetic Package (Laser Welding)

2-4GHz, NF: 0.8dB



6-18GHz, NF: 1.0dB



1-4GHz, NF: 1.0dB



0.5-40GHz, NF: 3.0dB



0.5-50GHz, NF: 5.0dB



18-50GHz, NF: 5.0dB



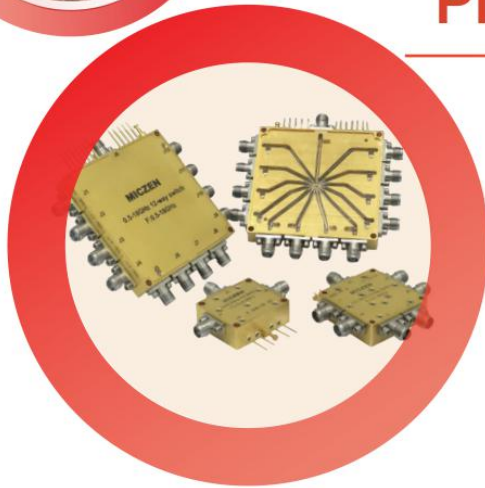
## Data Sheet (partial)

Part Number	Freq.	Gain	NF	P1dB	IP3	Gain Flatness	VSWR	Power Supply	Current
	(GHz)	(dB)	(dB)	(dBm)	(dBm)	(±dB)		(V)	
YCLNA00054GA35	0.01-54	36	3	15	25	1.5	3	12	300
YCLNA00050GA27	0.01-50	30	5	22	6	3	2.5	12	400
YCLAN001265GA27	0.1-26.5	27	5	21	30	3	2	12	400
YCLNA00101GA20	0.1-1	25	2	15	32	2	2	12	170
YCLNA00320GA11	0.3-20	13	2	10	20	2	2	12	65
YCLAN00518GA26	0.5-18	26	5	15	26	2	2	12	150
YCLNA00821GA23	0.8-21	26	3	26	36	2.5	2	12	600
YCLNA0104GA30	1-4	30	0.8	10	20	1	2	12	90
YCLAN0118GA27	1-18	27	2.5	15	27	3	2	12	200
YCLNA0204GA24	2-4	25	0.7	10	20	1	2	12	60
YCLNA0208GA30	2-8	30	1	10	20	2	2	12	90
YCLNA0218GA12	2-18	15	4.8	22	30	1.5	2	12	160
YCLNA0408GA24	4-8	25	0.7	10	20	1	2	12	60
YCLNA175215GA24	17-22	25	1.5	17	26	0.5	1.6	12	90
YCMZLNA1840GA40	18-40	40	5	18	30	2.5	2.5	12	650
YCLNA1850GA34	18-50	40	5	15	25	4	2.5	12	600
YCLAN1842GA22	18-42	22	5	15	20	2.5	2.5	5	250
YCLNA1844GA40	18-44	40	5	18	30	2.5	2.5	12	650
YCLAN26540GA40	26.5-40	40	2.5	10	20	2.5	2.5	12	250
YCLAN325365GA25	32.5-36.5	25	5	18	25	0.75	2	12	400
YCLAN325365GA3	32.5-36.5	35	1.8	11	20	0.75	2	12	300





## PIN SWITCH



- Low Insertion Loss
- High Isolation
- High Power up to 200W
- USB Control
- Fast Switch Speed
- Hermetic Package (Laser Welding)

### Data Sheet (High Power Switch)

Part Number	Description	Freq.	Insertion Loss	VSWR	Isolation	Power	Switch Speed	Style
		(GHz)	(dB)	(Max)	(dB)	(W)	(ns)	
YCSP2T0006GR40W	SP2T	DC~6	0.5	2	35	40	50	Reflective
YCSP4T0006GR40W	SP4T	DC~6	0.85	2	70	40	50	Reflective
YCSP2T0006GR100W	SP2T	DC~6	1.3	2	40	100	50	Reflective
YCSP2T0102GR100W	SP2T	1~2	0.8	2	40	100	2000	Reflective
YCSP2T0204GR100W	SP2T	2~4	1	2	40	100	2000	Reflective
YCSP2T0408GR100W	SP2T	4~8	1.4	2	40	100	2000	Reflective
YCSP2T0618GR50W	SP2T	6~18	1.6	2	40	50	2000	Reflective



## Data Sheet (partial)

Part Number	Description	Freq.	Insertion Loss	VSWR	Isolation	Power	Switch Speed	Style
		(GHz)	(dB)	(Max)	(dB)	(W)	(ns)	
YCSP2T0218GA	SP2T	2~18	2.2	1.6	65	1	100	Absorptive
YCSP6T0118GA	SP6T	1~18	3.5	2	70	0.3	50	Absorptive
YCSP2T005435GA	SP2T	0.5~43.5	4.5	2	60	0.5	200	Absorptive
YCSP2T00550GA	SP2T	0.05~50	4.5	2	60	0.5	100	Absorptive
YCSP2T0003GA	SP2T	0.02~3	1	1.7	60	1	250	Absorptive
YCSP2T0208GA	SP2T	2~8	2	2	60	1	50	Absorptive
YCSP2T0018GA	SP2T	0.02~18	2	2	60	1	250	Absorptive
YCSP2T0118GA	SP2T	1~18	2	2	60	1	50	Absorptive
YCSP2T0840GA	SP2T	8~40	5	2.2	50	0.5	50	Absorptive
YCSP3T005435GA	SP3T	0.5~43.5	4.5	2	60	0.5	200	Absorptive
YCSP3T0018GA	SP3T	0.02~18	2	2	60	1	250	Absorptive
YCSP4T005435GA	SP4T	0.5~43.5	7	2	60	0.5	200	Absorptive
YCSP4T00550GA	SP4T	0.05~50	7	2	60	0.5	100	Absorptive
YCSP4T00518GA	SP4T	0.5~18	3.5	2	60	1	50	Absorptive
YCSP4T0118GA	SP4T	1~18	3.5	2	60	1	50	Absorptive
YCSP5T005435GA	SP5T	0.5~43.5	7	2	60	0.5	200	Absorptive
YCSP5T0118GA	SP5T	1~18	3.5	2	60	1	50	Absorptive
YCSP8T00540GA	SP8T	0.5~40	7	3	55	0.15	50	Absorptive
YCSP8T0118GA	SP8T	1~18	3.5	1.8	70	1	50	Absorptive



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## ATTENUATOR

Low Insertion Loss  
Ultra Broadband  
High Attenuation Accuracy  
Frequency Range up to 40GHz  
Attenuation Step up to 0.1dB  
Attenuation Range up to 127.5dB

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## PHASE SHIFTER

Low Insertion Loss  
Ultra Broadband  
Low Phase Error  
Low Amplitude Errors  
High Phase Accuracy

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### Attenuator (partial)

Part Number	Freq.	Bit	Insertion Loss (max)	Total Attention	Attenuation Step	Accuracy	Speed	VSWR	Power
	(GHz)		(dB)	(dB)	(dB)	(dB)	(us)	(max)	(W)
YCDT0500140GA	0.1~40	5	6	31	1	1	0.2	2	0.1
YCDT060102GA	1~2	6	0.8	64	1	1	2	2.5	0.5
YCDT060204GA	2~4	6	1.5	64	1	1	2	2.5	0.5
YCDT060408GA	4~8	6	1.8	64	1	1	2	2.5	0.5
YCDT060812GA	8~12	6	2.5	64	1	1	2	2.5	0.5
YCDT061218GA	12~18	6	2.8	64	1	1	2	2.5	0.5
YCDT06001012GA	0.1~1.2	6	1.8	64	1	1	2	2.5	0.5
YCDT060418GA	4~18	6	7	64	1	1	2	2.5	0.5
YCDT060108GA	1~8	6	3	64	1	1	2	2.5	0.5

### Phase Shifter (partial)

Part Number	Freq.	Step	Phase Accuracy	Bit	Insertion Loss	VSWR	Phase Range	Power
	GHz	(°)	(±°)		(dB)	(max)	(°)	(W)
YCDPH0408GA360	4~8	5.625	10	6	6	2	354.5	0.2
YCDPH0618GA360	6~18	5.625	5	6	6	2	360	0.5
YCDPH0102GA360	1~2	5.625	5	6	5	2	360	0.5
YCDPH0204GA360	2~4	5.625	5	6	5	2	360	0.5
YCDPH18265GA360	18~26.5	5.625	5	6	5	2	360	0.5
YCDPH1218GA360	12~18	5.625	5	6	4.5	2	360	0.5
YCDPH0313GA360	3~13	5.625	5	6	5	2	360	0.5



## DETECTOR

Low Insertion Loss  
Ultra Broadband  
High Sensitivity  
Positive or Negative  
Small Size



## LIMITER

Low Insertion Loss  
Ultra Broadband  
Low leakage Power  
High Power  
Small Size



### Detector (partial)

PartNumber	Freq.	Max Power	Sensitivity	Min Detection	Connector
	(GHz)	(W)	(mV/uW)	(dBm)	
YCPDT1018GA	10~18	0.1	0.5	-40	SMA
YCPDT0818GA	8~18	0.1	0.4	-45	SMA
YCPDT0618GA	6~18	0.1	0.4	-45	SMA
YCPDT00518GA	0.5~18	0.1	0.4	-45	SMA
YCPDT0018GB	0.01~18	0.1	0.5	-45	SMA
YCPDT0018GA	0.01~18	0.1	0.5	-20	SMA
YCPDT0012GA	0.01~12	0.1	0.5	-20	SMA
YCPDT0208GA	2~8	0.1	0.4	-45	SMA
YCPDT00508GA	0.5~8	0.1	0.4	-45	SMA

### Limiter (partial)

Part Number	Freq.	Cw Input Power	Flat Leakage level	Insertion Loss	VSWR	Connector
	(GHz)	(W)	(dBm)	(dB)		
YCLMT0118GA	2~18	6	17	1.9	2	SMA
YCLMT0818GA	8~18	10	15	2	1.8	SMA
YCLMT0208GA	2~8	10	17	1	1.5	SMA
YCLMT00502GA	0.5~2	10	17	1.8	2	SMA
YCLMT0812GA	8~12	5	17	1.8	2	SMA

## POWER DIVIDER



YingTron's power dividers are being capable of reaching up to 43.5GHz and frequency range is as wide as 40 octaves with high port isolation, it can actualize 64-way signal shunting. Serialization and standardization of power divider shelf products take shape according to the standard frequency section with quick delivery system.



## COUPLER



YingTron's couplers are featured by high frequency up to 43.5GHz, frequency range up to 40 octaves, high directivity and high handling power etc. Serialization and standardization of coupler shelf products take shape according to the standard frequency section, which makes quick delivery possible.

Part Number	Freq.	Way	Insertion Loss	Isolation	VSWR	Am Balance	Phase Balance	Power
	(GHz)		(dB)	(dB)	IN/OUT	(±dB)	(±°)	
YCP80118GA	1~18	8	4	15	1.8	0.5	10	20
YCP41840GB	18~40	4	1.3	15	1.8	0.4	6	10
YCP2100435GB	10~43.5	2	0.8	16	1.6	0.4	6	10
YCP8060435GB	6~43.5	8	2.8	15	2	0.5	6	10
YCP20618GA	6~18	2	0.5	20	1.5	0.3	4	20
YCP80418GA	4~18	8	1.5	18	1.7	0.5	6	20
YCP20240GB	2~40	2	1.5	16	1.8	0.35	6	10
YCP20222GA	2~22	2	1.5	16	1.6	0.4	5	20
YCP80218GA	2~18	8	2.5	15	1.8	0.8	10	20
YCP2010265GA	1~26.5	2	1.2	16	1.7	0.5	6	10
YCP40118GN	1~18	4	2.5	16	1.6	0.5	6	20
YCP4010124GA	1~12.4	4	2.2	16	1.6	0.5	7	20
YCP2017265GB	1.7~26.5	2	1.2	16	1.8	0.4	6	20
YCP20037506G	0.375~6	2	1	16	1.5	0.2	3	30
YCP2007027GA	0.7~2.7	2	0.4	20	1.3	0.2	4	50
YCP200518GA	0.5~18	2	1.6	16	1.6	0.4	5	20
YCP800506GA	0.5~6	8	2.2	18	1.6	0.3	6	30

Power divider (Partial) ▲

▼ Coupler (Partial)

Part Number	Freq.	Coupling	Insertion Loss	VSWR	Coupling Accuracy	Directivity	Connector
	(GHz)		(dB)		(dB)		
YCD2000518GA	0.5~18	20	1.3	1.5	1	12	SMA
YCD3000518GA	0.5~18	10	1.2	1.5	1	12	SMA
YCD300140GB	1~40	30	2	1.6	1	10	2.92
YCD300118GA	1~18	30	1	1.6	1	12	SMA
YCD100118GB	1~18	10	0.9	1.5	1	12	SMA
YCD100218GA	2~18	10	0.7	1.5	1	12	SMA
YCD300240GB	2~40	30	1.8	1.6	1	10	2.92
YCD200240GB	2~40	20	1.8	1.6	1	10	2.92
YCD100240GB	2~40	10	2	1.6	1	10	2.92
YCD300218GN	2~18	30	0.6	1.5	1	12	N
YCD200218GA	2~18	10	0.7	1.5	1	12	SMA
YCD300418GA	4~18	30	0.5	1.5	1	12	SMA
YCD200418GA	4~18	20	0.6	1.5	1	12	SMA
YCD100418GA	4~18	10	0.6	1.5	1	12	SMA
YCD060418GA	4~18	6	0.8	1.5	1	12	SMA
YCD300840GB	8~40	30	1.6	1.6	1	10	2.92
YCD200840GB	8~40	20	1.6	1.6	1	10	2.92
YCD150840GB	8~40	15	1.4	1.6	1	12	2.92
YCD100840GB	8~40	10	1.6	1.6	1	10	2.92



YingTron's filter is featured by following forms diversification: Chebyshev elliptic filter with flexible mode, and filters with cavity form, LC form, micro-strip form and waveguide form, satisfying the requests of different customers, and it also owns a feature of miniaturization.



▼ Band Pass Filter (Partial)

Part Number	Freq.	Insertion Loss (dB)	Stop Band (GHz)	Rejection (dB)	VSWR	Connector
	(GHz)					
YCBF1418GA	14~18	1	DC-12 & 20.7-24	50	1.8	SMA
YCBF1220GA	12~20	1	DC-10 & 24-25	40	1.8	SMA
YCBF0812GA	8~18	1.2	DC-6.8 & 20.8-22	50	1.8	SMA
YCBF0608GA	6~8	1.2	DC-5.1 & 9.2-16	50	1.8	SMA
YCBF00501GA	0.5~1	1.5	DC-0.4 & 1.1-6	50	1.8	SMA
YCBF0408GA	4~8	1.2	DC-3.4 & 9.2-12	50	2	SMA
YCBF0206GA	2~6	1.3	DC-1.5 & 6.5-18	60	2	SMA
YCBF0204GA	2~4	1.2	DC-1.6 & 4.7-7	50	1.8	SMA
YCBF0102GA	1~2	1.2	DC-0.8 & 2.3-4	50	1.8	SMA

▼ Band Rejection Filter (Partial)

Part Number	Passband1	Passband2	Insertion Loss (dB)	VSWR	Stop Band	Rejection	Connector
	Freq. (GHz)	Freq. (GHz)			(GHz)	-on (dB)	
YCRJ00880096G	DC~0.85	1~2.2	0.8	2	0.88~0.96	40	SMA
YCRJ0240248GA	DC~2.35	2.55~6	1	2	2.4~2.48	40	SMA
YCRJ0420424GA	DC~4.18	4.26~8	0.8	2	4.2~4.24	60	SMA
YCRJ0170174GA	DC~1.68	1.76~6	0.8	2	1.7~1.74	40	SMA
YCRJ01250132G	DC~1.22	1.35~3	1.5	2	1.25~1.32	40	SMA
YCRJ02660273GA	DC~2.63	2.76~5	1.5	2	2.66~2.73	40	SMA

▼ Low Pass Filter (Partial)

Part Number	Freq.	Insertion Loss	Stop Band	Rejection	VSWR	Connector
	(GHz)					
YCLFDC045GA	DC~4.5	0.8	5.8~12	50	2	SMA
YCLFDC108GA	DC~10.8	1	13.8-18.1	30	1.8	SMA
YCLFDC063GN	DC~6.3	1.2	8-15	50	2	N
YCLFDC045GA	DC~4.5	0.8	5.8-12	50	2	SMA
YCLFDC13GA	DC~13	1	14.95-18	50	1.8	SMA
YCLFDC08GA	DC~8	1	9.2-16	50	1.8	SMA
YCLFDC07GA	DC~7	1	8.05-15	50	1.8	SMA
YCLFDC05GA	DC~5	1	5.75-12	50	1.8	SMA
YCLFDC04GA	DC~4	1	4.6-10	50	1.8	SMA
YCLFDC03GA	DC~3	1	3.45-8	50	1.8	SMA
YCLFDC02GA	DC~2	1	2.3-6	50	1.8	SMA
YCLFDC01GC	DC~1	1	3.5	80	1.8	SMA

▼ High Pass Filter (Partial)

Part Number	Freq.	Insertion Loss	Stop Band	Rejection	VSWR	Connector
	(GHz)					
YCHF1018GA	10~18	1	DC-8.5	50	1.8	SMA
YCHF0618GA	6~18	1	DC-5.1	50	1.5	SMA
YCHF0516GA	5~16	1	DC-4.25	50	1.8	SMA
YCHF0412GA	4~12	1	DC-3.4	50	1.8	SMA
YCHF0318GA	3~18	1.2	DC-2.1	50	1.8	SMA
YCHF0212GA	2~12	1	DC-1.6	50	1.8	SMA
YCHF0208GA	2~8	1	DC-1.6	50	1.6	SMA
YCHF0105GA	1~5	1.2	DC-0.8	50	1.8	SMA



## HYBRID



Yingtron's makes hybrids own the characteristics of small size, high handling power, wide frequency range, its form diversification covers cavity form, micro-strip form, waveguide form, 90° hybrid and 180° hybrid. According to the octaves relations, the serialization and standardization come into being, meeting needs of different customers.

## 90° Hybrid (partial)

PartNumber	Freq.	Insertion Loss	Isolation	VSWR	Am Balance	Phase Balance	Connector
	(GHz)	(dB)	(dB)		(±dB)	(±°)	
YCH9002004GA	0.2~0.4	0.3	24	1.2	0.5	2	SMA
YCH900304GA	0.3~4	1.5	20	1.5	1	10	SMA
YCH900507GB	0.5~7	1.3	20	1.5	1	10	SMA
YCH900502GA	0.5~2	0.5	22	1.2	0.6	4	SMA
YCH90108GA	1~8	1.3	18	1.3	0.6	10	SMA
YCH90102GN	1~2	0.2	20	1.2	0.5	2	N
YCH90102GA	1~2	0.3	25	1.2	0.5	2	SMA
YCH902265GA	2~26.5	2	11	1.5	1.5	12	SMA
YCH90218GA	2~18	1.7	15	1.5	0.7	10	SMA
YCH90240GA	2~40	2	11	1.8	1.5	12	2.92
YCH90204GN	2~4	0.4	20	1.2	0.6	3	N
YCH90204GA	2~4	0.3	22	1.2	0.5	2	SMA
YCH90418GA	4~18	1.6	15	1.6	0.7	8	SMA
YCH90408GA	4~8	0.35	18	1.35	0.5	3	SMA
YCH90618GA	6~18	1.4	18	1.4	0.4	4	SMA

## 180° Hybrid (partial)

PartNumber	Freq.	Insertion Loss	Isolation	VSWR	Am Balance	Phase Balance	Connector
	(GHz)	(dB)	(dB)		(±dB)	(±°)	
YCH800503GA	0.5~3	2	18	1.6	1.2	12	SMA
YCH800501GA	0.5~1	0.4	22	1.4	0.5	10	SMA
YCH80075015GA	0.75~1.5	0.6	22	1.4	0.5	10	SMA
YCH80102GA	1~2	0.6	22	1.4	0.5	10	SMA
YCH80218GA	2~18	2.1	16	1.5	0.8	8	SMA
YCH80208GA	2~8	1.2	22	1.4	0.5	6	SMA
YCH80204GA	2~4	0.6	20	1.6	0.5	10	SMA
YCH80418GA	4~18	2	15	1.8	1.2	12	SMA
YCH80408GA	4~8	0.6	18	1.3	0.5	10	SMA
YCH80812GA	8~12	1.3	15	1.5	0.6	8	SMA