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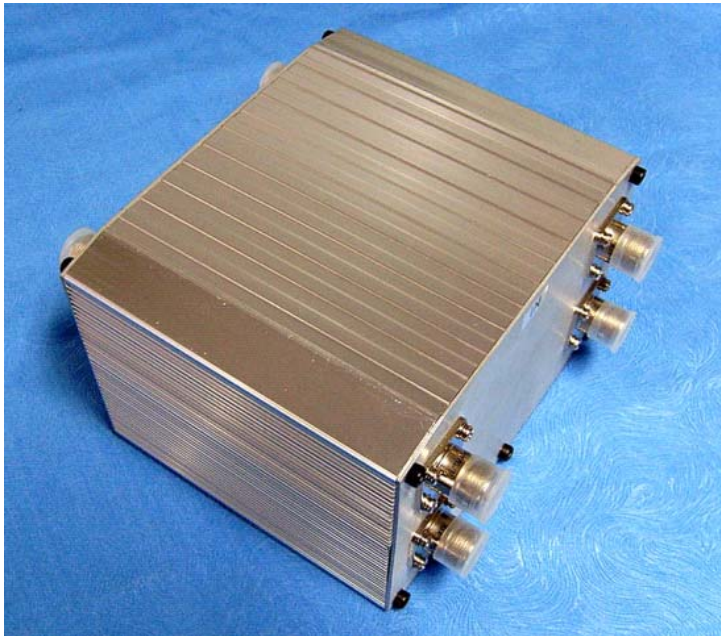


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# Data *sheet*

## 4 x 4 Combiner

4 input ports Tetra / CDMA / GSM / WCDMA / WiFi  
4 Output ports combined signal for antenna



<b>Working Frequency Range</b>	800 to 2500 MHz
<b>Port Isolation</b>	> 20dB
<b>VSWR</b>	≤ 1.5
<b>Transmission Loss</b>	6.5dB +/- 1.0dB
<b>Insertion Loss</b>	1dB
<b>Power</b>	100 Watts per Port
<b>Impedance</b>	50 Ohms
<b>Connector Type</b>	N female





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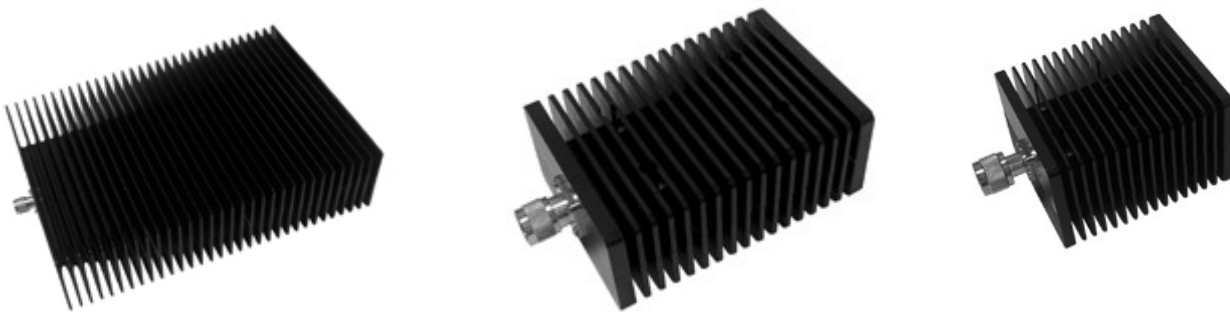
# Data sheet

## Termination Loads

Model No	DTRS0.5	DTRN2	DTRN5	DTRN10	DTRN20	DTRN30	DTRN50
Frequency	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz
Impedance (Ohms)	50	50	50	50	50	50	50
VSWR	1.20	1.15	1.15	1.15	1.15	1.15	1.20
Power rating Average (W)	0.5	2	5	10	20	30	50
Connector	SMA	N	N	N	N	N	N
Weight (g)	3.5	40	50	290	279	311	304
Dimensions D x L (mm)	9*13	20*36	20*37	48*82	54*85	54*95	64*109



Model No	DTRN80	DTRN100	DTSN150	DTSN200	DTSN300	DTSN500
Frequency	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz
Impedance (Ohms)	50	50	50	50	50	50
VSWR	1.20	1.20	1.20	1.20	1.20	1.25
Power rating Average (W)	80	100	150	200	300	500
Connector	N	N	N	N	N	N
Weight (g)	527	880	2100	4200	5100	7500
Dimensions D x L (mm)	68*119	80*146	160*130*65	230*160*87	300*160*86	400*245*97
			(L*W*H mm)	(L*W*H mm)	(L*W*H mm)	(L*W*H mm)



Customisable: Size, shape (round / square), connector type (SMA, N, BNC etc.) and specifications



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# Data sheet

## Attenuators DC ~ 3GHz

Model No	DJRS0.5	DTJRN2	DJRN5	DJRN10	DTRN20	DTRN30
Frequency	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz
Impedance (Ohms)	50	50	50	50	50	50
Attenuation (dB)	1~30dB	1~30dB	1~30dB	1~30dB	1~30dB	1~30dB
VSWR	1.20	1.15	1.20	1.20	1.20	1.20
Power rating Average (W)	0.5	2	5	10	20	30
Connector	SMA	N	N	N	N	N
Weight (g)	7	56	135	229	300	580
Dimensions D x L (mm)	8.3*28	20*58	30*58	48*95	54*99	54*109



Model No	DJRN50	DJRN80	DJRN100	DJSN150	DJSN200	DJSN300	DJSN500
Frequency	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz	DC~3GHz
Impedance (Ohms)	50	50	50	50	50	50	50
Attenuation (dB)	1~30dB	1~30dB	1~30dB	1~30dB	1~30dB	1~30dB	1~30dB
VSWR	1.20	1.20	1.20	1.20	1.20	1.20	1.25
Power rating Average (W)	50	80	100	150	200	300	500
Connector	N	N	N	N	N	N	N
Weight (g)	500	535	840	2100	4200	5100	7500
Dimensions D x L (mm)	64*122	68*132	80*165	160*130*65	230*160*87	300*160*86	400*245*97
				(L*W*H mm)	(L*W*H mm)	(L*W*H mm)	(L*W*H mm)



Customisable: Size, shape (round / square), connector type (SMA, N, BNC etc.) and specifications



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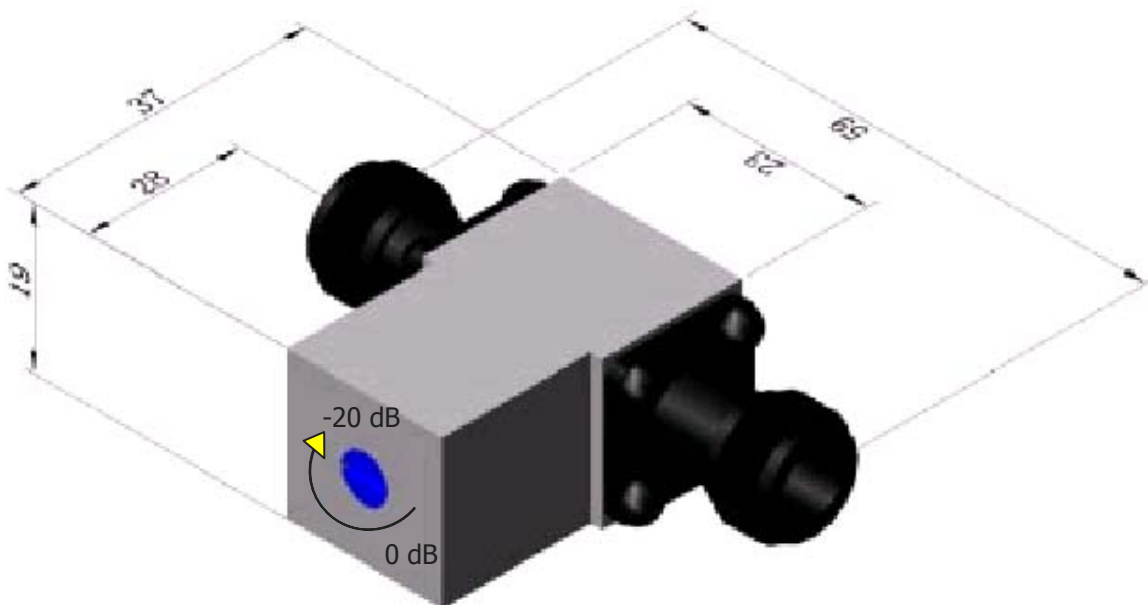


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# Data *sheet*

## Variable Attenuator

<b>Model No</b>	KT02-5/20dB
<b>Frequency</b>	DC~1GHz
<b>Impedance (Ohms)</b>	50
<b>Attenuation (dB)</b>	0 to 20 (± 0.4)
<b>VSWR</b>	1.5
<b>Power rating Average (W)</b>	2
<b>Connector</b>	N female
<b>Operating temperature (°C)</b>	-40 to +65
<b>Dimensions (mm)</b>	37 x 23 x 19





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# Data sheet

## 3dB Hybrid Coupler



### Product Benefits

- Suitable for multi-band range
- N-female connectors standard
- Robust Low Cost Package Design
- High Performance
- Low insertion loss

Specifications	Model HCSC030825
Frequency (MHz)	800~2500
VSWR	≤ 1.3
Impedance (Ohm)	50
Insertion Loss (dB)	≤ 3.4
Isolation (dB)	≥ 20
Power (W)	100
Connector	N-KF
Dimension (mm)	118*35*22
Operating Temp. (C)	-30~85

Specifications	Model HCSC031725
Frequency (MHz)	1700~2500
VSWR	≤ 1.3
Impedance (Ohm)	50
Insertion Loss (dB)	≤ 3.4
Isolation (dB)	≥ 20
Power (W)	100
Connector	N-K
Dimension (mm)	70 x 37 x 18
Operating Temp. (C)	-30~85





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# Data sheet

## Directional Coupler

### Product Benefits

- Suitable for multi-band range
- Various coupling values
- Low loss high directivity
- Low VSWR
- Low cost high performance



### Microstrip

	DTCM0825-5	DTCM0825-6	DTCM0825-7	DTCM0825-10	DTCM0825-15	DTCM0825-20
Frequency (MHz)	800-2500					
Coupling (dB)	5±0.6	6±0.6	7±0.6	10±1	15±1	20±1
Insertion loss (dB)	≤2.00	≤1.6	≤1.4	≤0.8	≤0.5	≤0.3
Directivity (dB) min	20					
VSWR max.	1.25					
Power Rating (W)	50					
Connector	N-50KFD					
Dimension (mm)	84 x 26 x 16					
Operating Temp.	-40°C ~ +60°C					

### Cavity

	DTCC0825-5	DTCC0825-7	DTCC0825-10	DTCC0825-15	DTCC0825-20	DTCC0825-25
Frequency (MHz)	800-2500					
Coupling (dB)	5±0.5	7±0.5	-10±1	-15±1	-20±1	-25±1
Insertion loss (dB)	≤2.00	≤1.4	≤0.7	≤0.4	≤0.3	≤0.3
Directivity (dB) min	20					
VSWR max.	1.2					
Power Rating (W)	200					
Connector	N-50KFD					
Dimension (mm)	120 x 40 x 16.5					
Operating Temp.	-40°C ~ +60°C					





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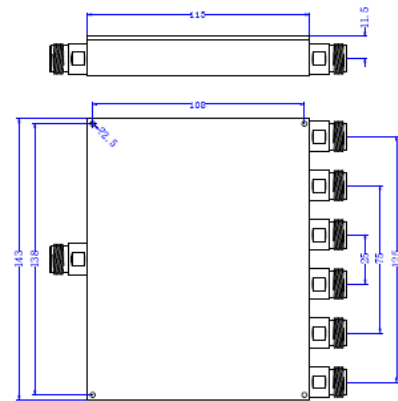
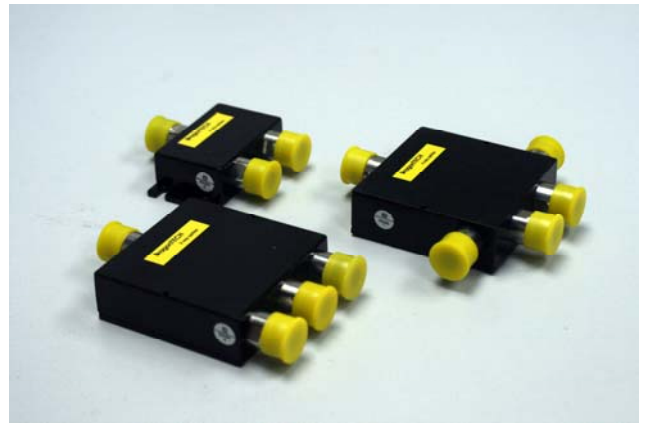


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# Data sheet

## Splitter / Combiner

Microstrip	DTG0825-2 2way	DTG0825-3 3way	DTG0825-4 4way	DTG0825-6 6way
Frequency (MHz)	800-2500			
Split Loss (dB) max.	3.4	5.3	6.5	9.0
Isolation (dB) min.	20			
VSWR	1.25			
Power (W)	50			
Temperature (C)	-40 to +60			
Connector	N female			
Dimension (mm)	60*38*20	72*72*23	72*72*23	143*113*23



Cavity	DTGQ0825-2	DTGQ0825-3	DTGQ0825-4
Frequency (MHz)	800-2500		
Split Loss (dB) max.	3.4	5.3	6.3
VSWR	1.2		
Power (W)	200		
Temperature (C)	-40 to +60		
Connector	N-50KFD		





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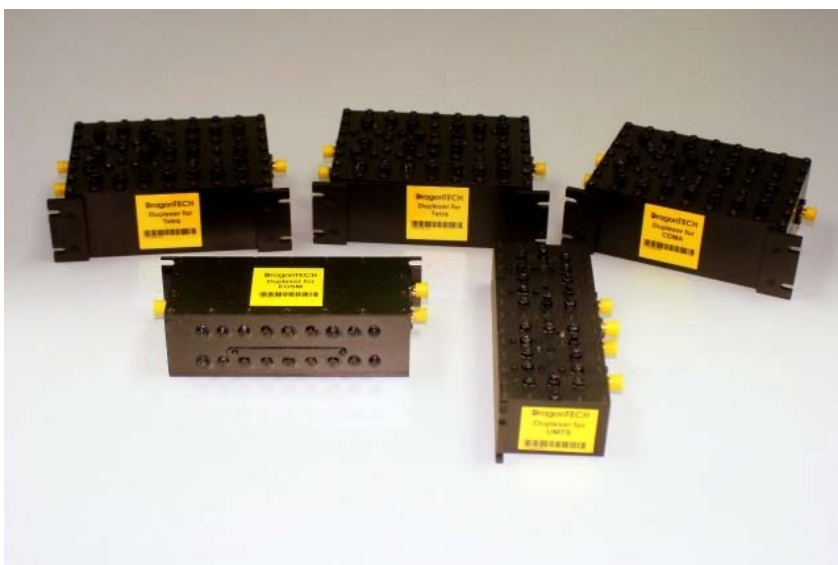
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# Data sheet

## Duplexer Series

### SPECIFICATION

Model	DKDTETRA	DKDCDMA	DKDGSM	DKDDCS	DKDWCDMA
System	Tetra	CDMA	GSM	DCS	WCDMA
Frequency (MHz)	806-824 ul 851-869 dl	824-849 869-894	880-915 925-960	1710-1785 1805-1880	1920-1980 2110-2170
Isolation (dB min)	90	90	90	90	90
Insertion Loss (dB max)	1.3	1.3	1.3	1.3	1.3
VSWR	1.2	1.2	1.2	1.2	1.2
Power (W max)	100	100	100	100	100
Temperature (degree C)	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60
Connector	N female				
Dimension (mm)	118x90x40	118x90x40	118x90x40	118x90x40	144x53x33



Customizable to Customer Needs:

- N female or SMA connector
- Frequency Range
- Loss / VSWR

Also Available:

- 400 MHz Radio
- 800 MHz Tetra
- CDMA 1x
- CDMA 2000 evdo







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# Data sheet

## WLAN GSM/UMTS Combiner HM-CG160D3G460 /WL100A1

Specifications	CDMA&GSM/DCS&3G/WLAN	
Model	HM-CG160D3G460 /WL100A1	
Port	CDMA &GSM/ DCS&3G	WLAN
Frequency Range( MHz)	800-960/1710-2170	2400-2500
VSWR	≤1.3	
Insertion Loss (dB)	≤0.6	≤0.6
Passband Ripple (dB)	≤0.5	≤0.5
Stopband Rejection (dB)	≥60@2400-2500MHz	≥60@800-960/1710-2170 MHz
Intermod (dBc)	≤-140	
Max. Power (w)	200	
Impedance (Ω)	50	
Temperature Range (°C)	-30-65	
Connector type	N-K	

**Features :**

- 2-way and 3-way
- Top Quality Combiners
- Any Combination



### Customizable to Customer Needs:

- N female or SMA connector
- Frequency Range
- Loss / VSWR

### Also Available:

- 400 MHz Radio
- 800 MHz Tetra
- CDMA 1x
- CDMA 2000 evdo
- PHS / 3G
- DCS





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# Data sheet

## Triplexer - GSM 900 / GSM 1800 / UMTS 2100

Specifications	GSM 900 / DCS1800 / WCDMA		
Model	HM-G80/D170/ /WC250A1		
Port	GSM	DCS	WCDMA
Frequency Range ( MHz)	880 - 960	1710 - 1880	1920 - 2170
VSWR	≤1.3		
Insertion Loss (dB)	≤0.8	≤0.8	≤0.8
Passband Ripple (dB)	≤0.4	≤0.4	≤0.4
Stopband Rejection (dB)	≥80		
Max. Power (w)	100		
Impedance (Ω)	50		
Dimension (mm)	155 x 145 x 56		
Temperature Range (°C)	-20 ~ 60		
Connector type	N Female		

### Combiner Series Features :

- 2-way and 3-way
- Top Quality Combiners
- Any Combination



### Customizable to Customer Needs:

- N female or SMA connector
- Frequency Range
- Loss / VSWR

### Also Available:

- 400 MHz Radio
- 800 MHz Tetra
- CDMA 1x
- CDMA 2000 evdo





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# Data sheet

## Diplexer GSM 900 & 1800 / UMTS

Specifications	GSM& DCS/WCDMA	
Model	HM-G70&D170/ /WC250A1	
Port	GSM & DCS	WCDMA
Frequency Range( MHz)	890-960 & 1710 - 1880	1920 - 2170
VSWR	≤1.3	
Insertion Loss (dB)	≤0.8	≤0.8
Passband Ripple (dB)	≤0.6	≤0.6
Stopband Rejection (dB)	≥80	
Max. Power (w)	100	
Impedance (Ω)	50	
Dimension (mm)	155 x 145 x 56	
Temperature Range (°C)	-30 - 65	
Connector type	N Female	

**Combiner Series Features :**

- 2-way and 3-way
- Top Quality Combiners
- Any Combination



### Customizable to Customer Needs:

- N female or SMA connector
- Frequency Range
- Loss / VSWR

### Also Available:

- 400 MHz Radio
- 800 MHz Tetra
- CDMA 1x
- CDMA 2000 evdo





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# Data sheet

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## Combiner iDEN 800 & GSM 900 / 1800

Specifications	iDEN 800 & GSM 900 / 1800	
Model	COM08-0918	
Port	GSM & DCS	iDEN
Frequency Range( MHz)	890-960 & 1710 - 1880	800-870
VSWR	≤1.3	
Insertion Loss (dB)	≤0.8	≤0.8
Passband Ripple (dB)	≤0.6	≤0.6
Stopband Rejection (dB)	≥80	
Max. Power (w)	100	
Impedance (Ω)	50	
Dimension (mm)	123 x 147 x 66	
Temperature Range (°C)	-30 - 65	
Connector type	N Female	

**Combiner Series Features :**

- 2-way and 3-way
- Top Quality Combiners
- Any Combination



### Customizable to Customer Needs:

- N female or SMA connector
- Frequency Range
- Loss / VSWR

### Also Available:

- 400 MHz Radio
- 800 MHz Tetra
- CDMA 1x
- CDMA 2000 evdo





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# Data sheet

## Diplexer GSM / UMTS

Specifications	GSM/WCDMA	
Model	HM-CG80/W250A1	
Port	GSM	WCDMA
Frequency Range( MHz)	880-960	1920 - 2170
VSWR	≤1.2	
Insertion Loss (dB)	≤0.3	≤0.3
Passband Ripple (dB)	≤0.1	≤0.1
Stopband Rejection (dB)	≥90dB@WCDMA	≥90dB@GSM
Max. Power (w)	200	
Impedance (Ω)	50	
Dimension (mm)	158 x 82 x 42	
Temp. Range (°C)	-20 to +60	
Connector type	N Female	

**Combiner Series Features :**

- 2-way and 3-way
- Top Quality Combiners
- Any Combination



### Customizable to Customer Needs:

- N female or SMA connector
- Frequency Range
- Loss / VSWR

### Also Available:

- 400 MHz Radio
- 800 MHz Tetra
- CDMA 1x
- CDMA 2000 evdo





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# Data sheet

## WLAN GSM & UMTS Combiner HM-C250/G70/W100

Specifications	GSM UMTS WLAN		
	Model	HM-C250/G70/W100	
Port	GSM	UMTS	WLAN
Frequency Range ( MHz)	800-960	1920-2170	2400-2500
VSWR	≤1.3		
Insertion Loss (dB)	≤0.7	≤0.7	≤0.7
Passband Ripple (dB)	≤0.5	≤0.5	≤0.5
Stopband Rejection (dB)	≥90	≥90	≥90
Intermod (dBc)	≤-140		
Max. Power (w)	100		
Impedance (Ω)	50		
Temperature Range (°C)	-30-65		
Connector type	N-K		

**Features :**

- 2-way or 3-way
- Top Quality Combiners
- Any Combination
- Coaxial Cavity Structure
- Reliable
- High Power Rating



### Customizable to Customer Needs:

- N female or SMA connector
- Frequency Range
- Loss / VSWR

### Also Available:

- 400 MHz Radio
- 800 MHz Tetra
- CDMA 1x
- CDMA 2000 evdo
- PHS / 3G
- DCS





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# Data sheet

## iDEN & UMTS Combiner 400 / 2100MHz

Specifications	iDEN & UMTS	
Model	DTJCB0421-18-NA	
Port	iDEN	UMTS
Frequency Range( MHz)	400-1000	1920-2170
VSWR	≤1.3	
Insertion Loss (dB)	≤0.4	≤0.4
Passband Ripple (dB)	≤0.2	≤0.2
Isolation (dB)	≥50	≥50
Max. Power (w)	10	
Impedance (Ω)	50	
Temperature Range (°C)	-30 to +55	
Connector type	N-K	
Dimension (mm)	174*77*25	

### Features :

- 2-way or 3-way
- Top Quality Combiners
- Any Combination
- Coaxial Cavity Structure
- Reliable
- High Power Rating



### Customizable to Customer Needs:

- N female or SMA connector
- Frequency Range
- Loss / VSWR

### Also Available:

- 400 MHz Radio
- 800 MHz Tetra
- CDMA 1x
- CDMA 2000 evdo
- PHS / 3G
- DCS





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# Data sheet

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## Combiner 380 / 800 - 2700MHz

Specifications		
Model	COM38+08-27	
Port	iDEN	Wideband
Frequency Range( MHz)	380-400	800-2170
VSWR	≤1.5	
Insertion Loss (dB)	≤0.8	≤0.8
Passband Ripple (dB)	≤0.5	≤0.5
Isolation (dB)	≥50	≥50
Max. Power (w)	10	
Impedance (Ω)	50	
Temperature Range (°C)	-30 to +55	
Connector type	N-K	
Dimension (mm)	180*85*30	

### Features :

- 2-way or 3-way
- Top Quality Combiners
- Any Combination
- Coaxial Cavity Structure
- Reliable
- High Power Rating



### Customizable to Customer Needs:

- N female or SMA connector
- Frequency Range
- Loss / VSWR

### Also Available:

- 400 MHz Radio
- 800 MHz Tetra
- CDMA 1x
- CDMA 2000 evdo
- PHS / 3G
- DCS

