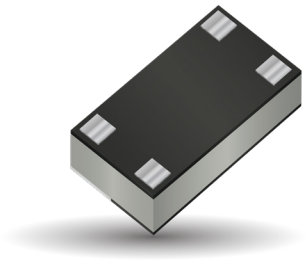
Thin-Film RF/Microwave Directional Couplers

High Directivity Directional Coupler

CP2816 Series



ITF TECHNOLOGY

The ITF LGA Coupler is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly. The ITF Coupler is offered in a variety frequency bands compatible with various types of high frequency wireless systems.

APPLICATIONS

- Defense Applications
- UHF/VHF Radios
- Handheld Systems
- Radar
- Commercial Aerospace
- Base Station

FEATURES

- Small size: 2816
- Band: (see Part Numbers)
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C - +105°C
- Low profile
- Rugged construction
- RoHS compliant

HOW TO ORDER

CP	2816	A	XXXX	A	N	TR
Series	Case Size	Type	Frequency (MHz)	Sub-Type	LGA Termination	Taped & Reeled Lead Free

QUALITY INSPECTION

Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I_R, 4 hours

POWER HANDLING

20W (Continuous)

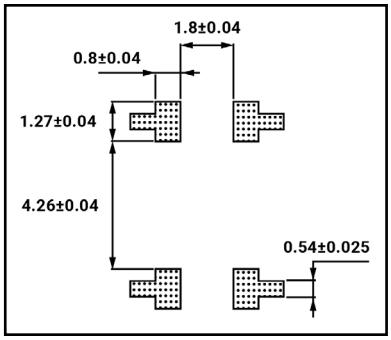
TERMINATION

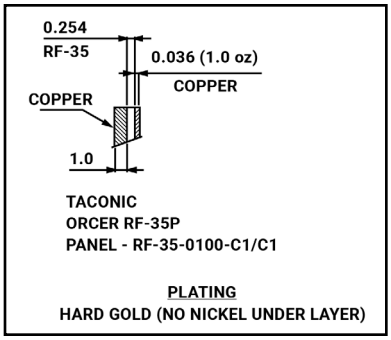
Nickel/Lead Free solder coating compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

ELECTRICAL CHARACTERISTICS

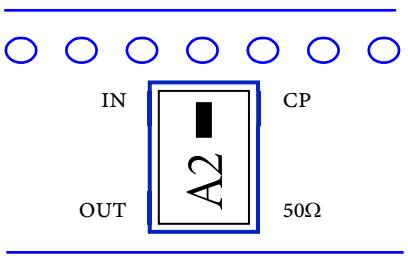
Part Number	Frequency (MHz)	Coupling (dB)	Insertion Loss (dB)	V.S.W.R	Directivity (dB)
CP2816A0281ANTR	225 - 337	-10 ± 2	-0.9	1.3	-14
CP2816A0368ANTR	225 - 512	-15 ± 4	-0.85	1.3	-14
CP2816A0424ANTR	337 - 512	-10 ± 2	-0.9	1.3	-14
CP2816A0540ANTR	480 - 600	-10 ± 1.2	-0.9	1.3	-14
CP2816A0615ANTR	480 - 750	-15 ± 2	-0.8	1.3	-14
CP2816A0675ANTR	600 - 750	-10 ± 1.2	-0.8	1.3	-14

PAD AND PCB RECOMMENDATION (TOP VIEW)





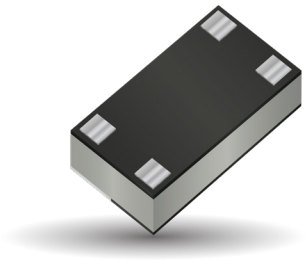
ORIENTATION IN TAPE (TOP VIEW)



Thin-Film RF/Microwave Directional Couplers

High Directivity Directional Coupler

CP2816A0281ANTR



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APPLICATIONS

- Defense Applications
- UHF/VHF Radios
- Handheld Systems
- Radar
- Commercial Aerospace
- Base Station

FEATURES

- Small size: 2816
- Band: 225 - 337 MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C - +105°C
- Low profile
- Rugged construction
- RoHS compliant

HOW TO ORDER

CP	2816	A	0281	A	N	TR
Series	Case Size	Type	Frequency (MHz)	Sub-Type	LGA Termination	Taped & Reeled Lead Free

QUALITY INSPECTION

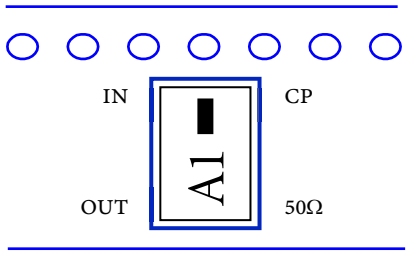
Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I_R, 4 hours

TERMINATION

Nickel/Lead Free solder coating compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

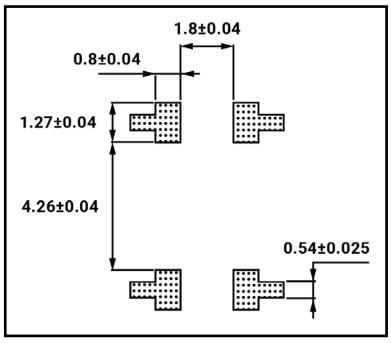
ORIENTATION IN TAPE (TOP VIEW)

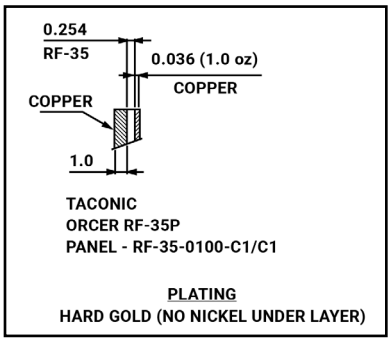


POWER HANDLING

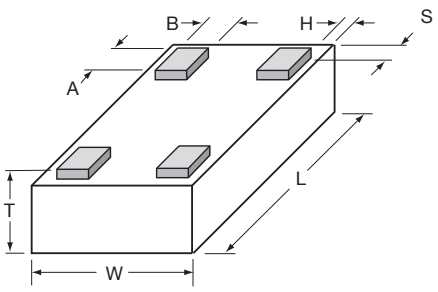
20W (Continuous)

PAD AND PCB RECOMMENDATION (TOP VIEW)





DIMENSIONS



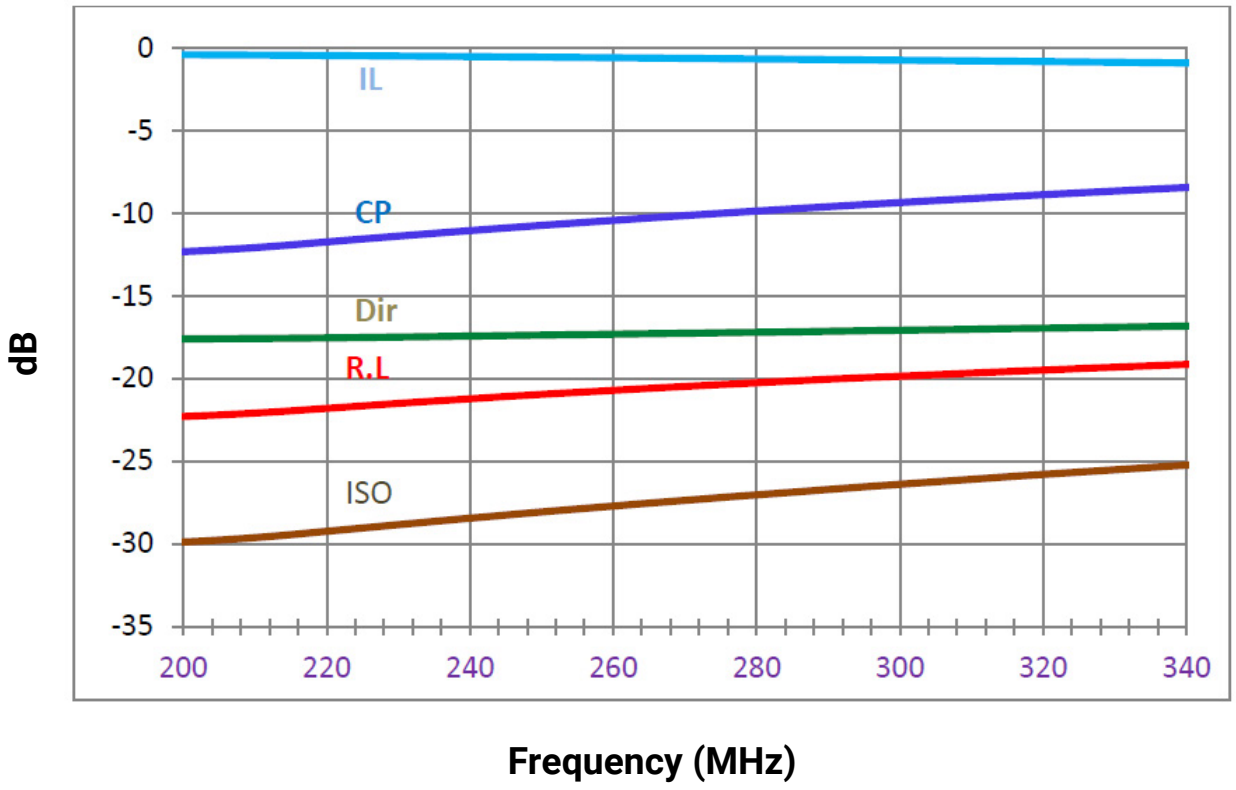
mm (inches)

L	7.0±0.3
W	4.0±0.2
T	1.2 max
A	1.1±0.1
B	0.6±0.1
D	3.2±0.1
E	2.0±0.1
F	4.5±0.1

ELECTRICAL CHARACTERISTICS

Part Number	Frequency (MHz)	Coupling (dB)	Insertion Loss (dB)	V.S.W.R	Directivity (dB)
CP2816A0281ANTR	225 - 337	-10 ± 2	-0.9	1.3	-14

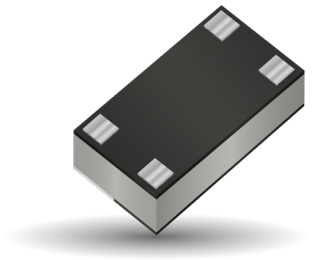
TYPICAL ELECTRICAL PERFORMANCE



Thin-Film RF/Microwave Directional Couplers

High Directivity Directional Coupler

CP2816A0368ANTR



ITF TECHNOLOGY

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APPLICATIONS

- Defense Applications
- UHF/VHF Radios
- Handheld Systems
- Radar
- Commercial Aerospace
- Base Station

FEATURES

- Small size: 2816
- Band: 225 - 512 MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C - +105°C
- Low profile
- Rugged construction
- RoHS compliant

HOW TO ORDER

CP	2816	A	0368	A	N	TR
Series	Case Size	Type	Frequency (MHz)	Sub-Type	LGA Termination	Taped & Reeled Lead Free

QUALITY INSPECTION

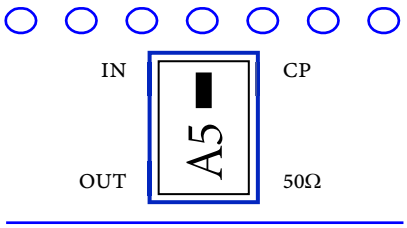
Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I_R, 4 hours

TERMINATION

Nickel/Lead Free solder coating compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

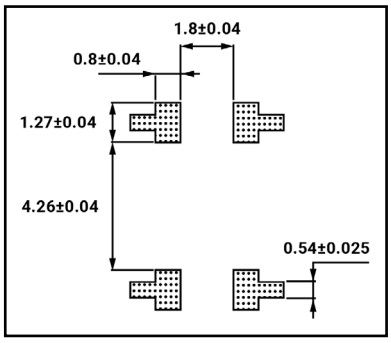
ORIENTATION IN TAPE (TOP VIEW)

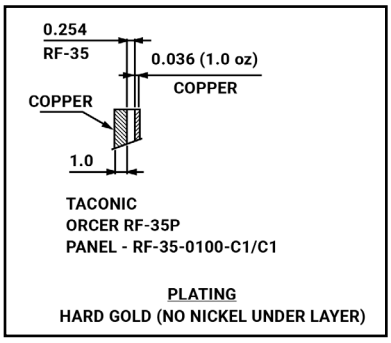


POWER HANDLING

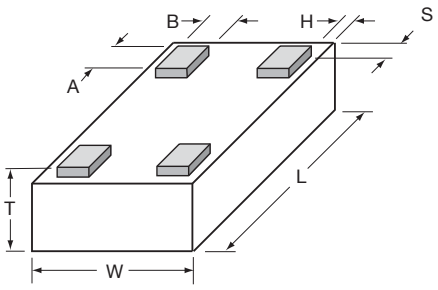
20W (Continuous)

PAD AND PCB RECOMMENDATION (TOP VIEW)





DIMENSIONS



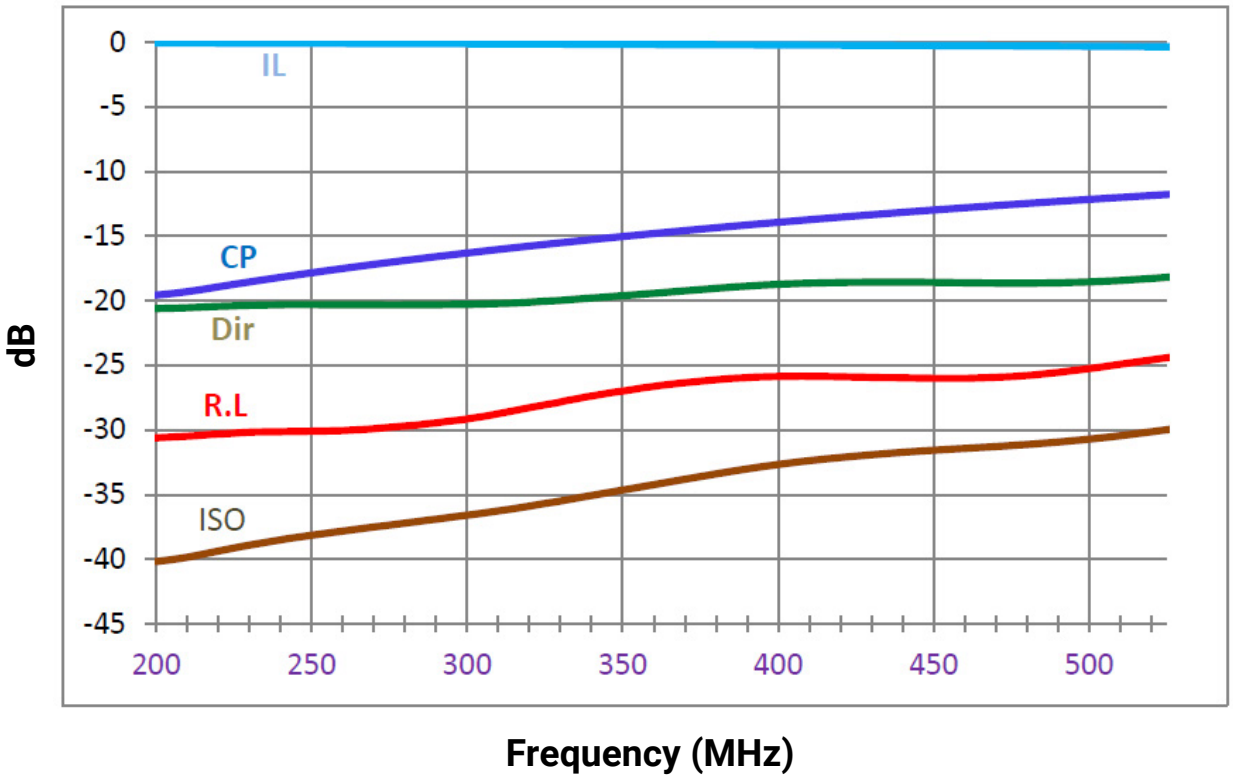
mm (inches)

L	7.0±0.3
W	4.0±0.2
T	1.2 max
A	1.1±0.1
B	0.6±0.1
D	3.2±0.1
E	2.0±0.1
F	4.5±0.1

ELECTRICAL CHARACTERISTICS

Part Number	Frequency (MHz)	Coupling (dB)	Insertion Loss (dB)	V.S.W.R	Directivity (dB)
CP2816A0368ANTR	225 - 512	-15 ± 4	-0.85	1.3	-14

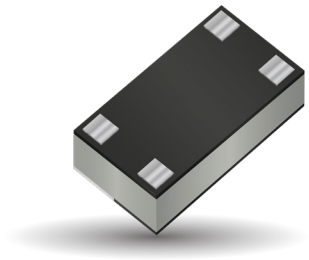
TYPICAL ELECTRICAL PERFORMANCE



Thin-Film RF/Microwave Directional Couplers

High Directivity Directional Coupler

CP2816A0424ANTR



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APPLICATIONS

- Defense Applications
- UHF/VHF Radios
- Handheld Systems
- Radar
- Commercial Aerospace
- Base Station

FEATURES

- Small size: 2816
- Band: 337 - 512 MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C - +105°C
- Low profile
- Rugged construction
- RoHS compliant

HOW TO ORDER

CP	2816	A	0424	A	N	TR
Series	Case Size	Type	Frequency (MHz)	Sub-Type	LGA Termination	Taped & Reeled Lead Free

QUALITY INSPECTION

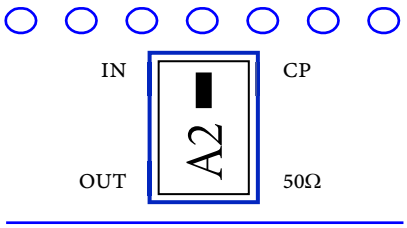
Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I_R, 4 hours

TERMINATION

Nickel/Lead Free solder coating compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

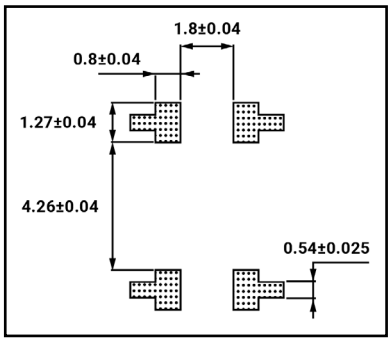
ORIENTATION IN TAPE (TOP VIEW)

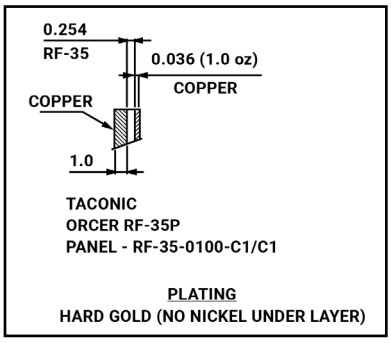


POWER HANDLING

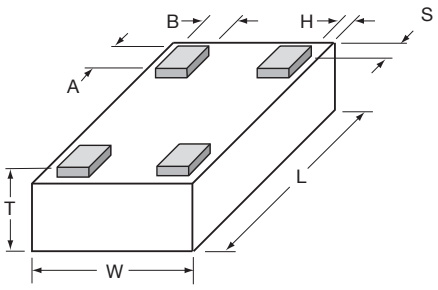
20W (Continuous)

PAD AND PCB RECOMMENDATION (TOP VIEW)





DIMENSIONS



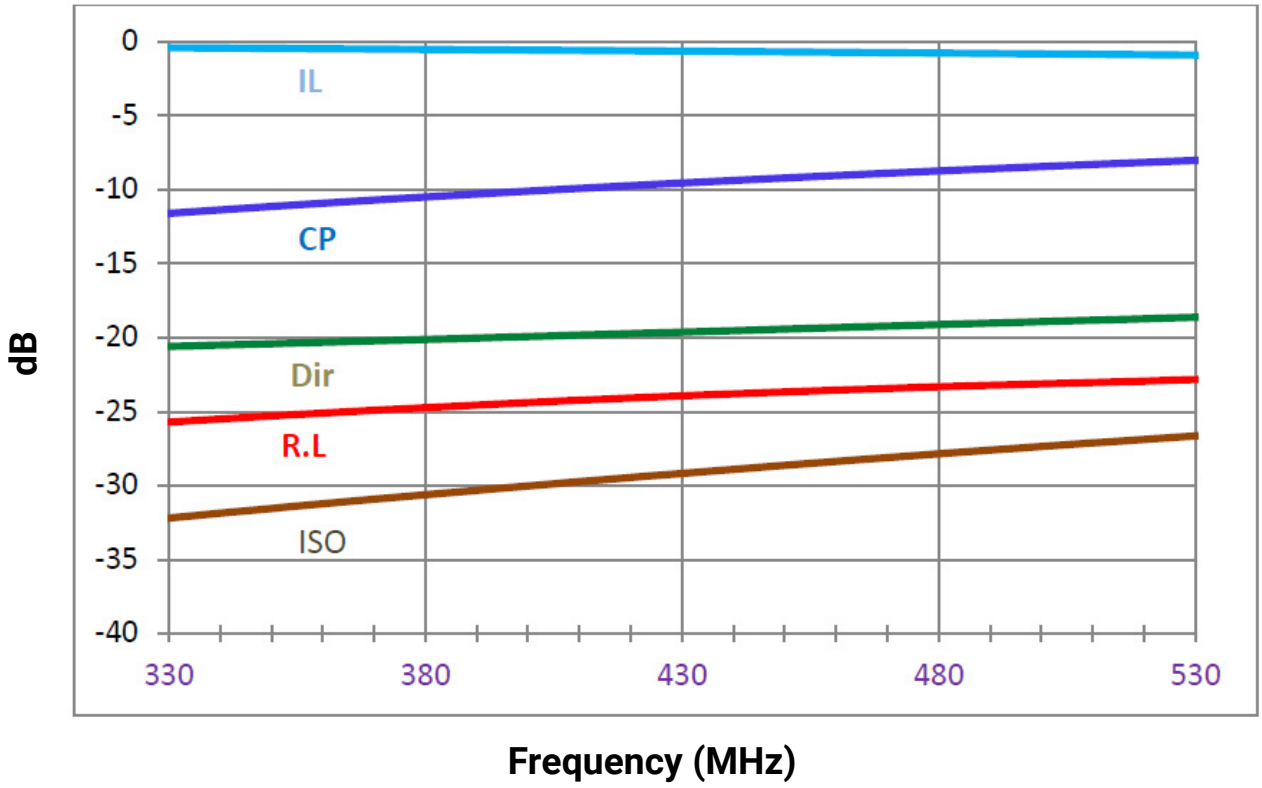
mm (inches)

L	7.0±0.3
W	4.0±0.2
T	1.2 max
A	1.1±0.1
B	0.6±0.1
D	3.2±0.1
E	2.0±0.1
F	4.5±0.1

ELECTRICAL CHARACTERISTICS

Part Number	Frequency (MHz)	Coupling (dB)	Insertion Loss (dB)	V.S.W.R	Directivity (dB)
CP2816A0424ANTR	337 - 512	-10 ± 2	-0.9	1.3	-14

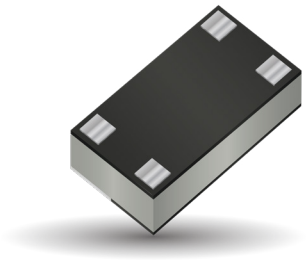
TYPICAL ELECTRICAL PERFORMANCE



Thin-Film RF/Microwave Directional Couplers

High Directivity Directional Coupler

CP2816A0540ANTR



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APPLICATIONS

- Defense Applications
- UHF/VHF Radios
- Handheld Systems
- Radar
- Commercial Aerospace
- Base Station

FEATURES

- Small size: 2816
- Band: 480 - 600 MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C - +105°C
- Low profile
- Rugged construction
- RoHS compliant

HOW TO ORDER

CP	2816	A	0540	A	N	TR
Series	Case Size	Type	Frequency (MHz)	Sub-Type	LGA Termination	Taped & Reeled Lead Free

QUALITY INSPECTION

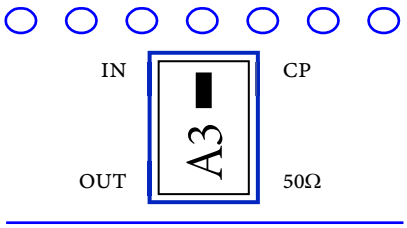
Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I_R, 4 hours

TERMINATION

Nickel/Lead Free solder coating compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

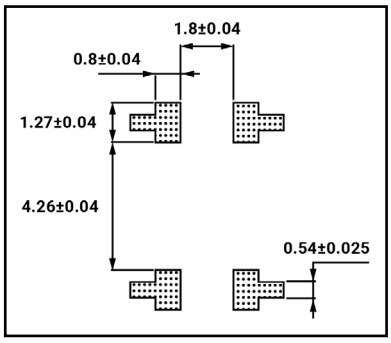
ORIENTATION IN TAPE (TOP VIEW)

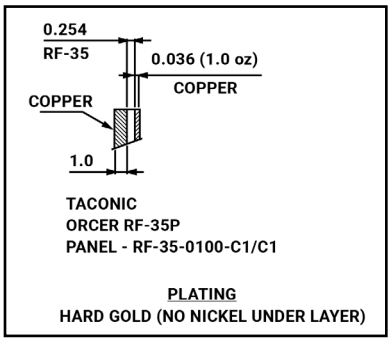


POWER HANDLING

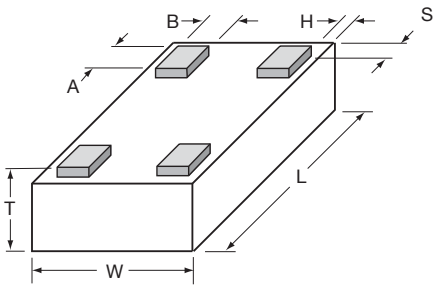
20W (Continuous)

PAD AND PCB RECOMMENDATION (TOP VIEW)





DIMENSIONS



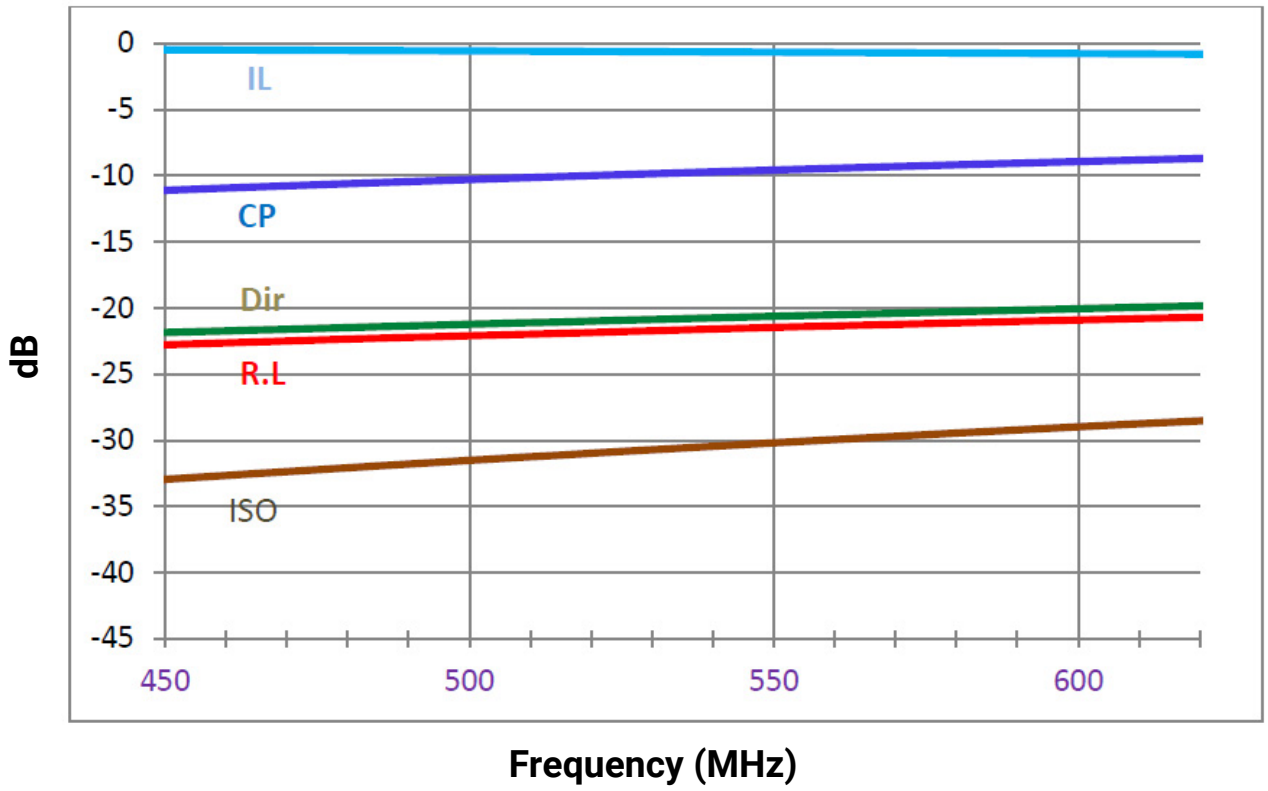
mm (inches)

L	7.0±0.3
W	4.0±0.2
T	1.2 max
A	1.1±0.1
B	0.6±0.1
D	3.2±0.1
E	2.0±0.1
F	4.5±0.1

ELECTRICAL CHARACTERISTICS

Part Number	Frequency (MHz)	Coupling (dB)	Insertion Loss (dB)	V.S.W.R	Directivity (dB)
CP2816A0540ANTR	480 - 600	-10 ± 1.2	-0.9	1.3	-14

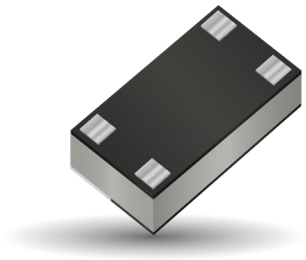
TYPICAL ELECTRICAL PERFORMANCE



Thin-Film RF/Microwave Directional Couplers

High Directivity Directional Coupler

CP2816A0615ANTR



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APPLICATIONS

- Defense Applications
- UHF/VHF Radios
- Handheld Systems
- Radar
- Commercial Aerospace
- Base Station

FEATURES

- Small size: 2816
- Band: 480 - 750 MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C - +105°C
- Low profile
- Rugged construction
- RoHS compliant

HOW TO ORDER

CP	2816	A	0615	A	N	TR
Series	Case Size	Type	Frequency (MHz)	Sub-Type	LGA Termination	Taped & Reeled Lead Free

QUALITY INSPECTION

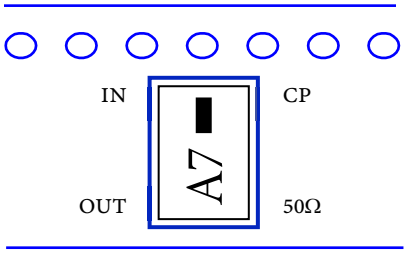
Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I_R, 4 hours

TERMINATION

Nickel/Lead Free solder coating compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

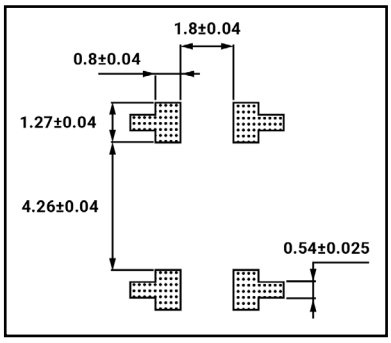
ORIENTATION IN TAPE (TOP VIEW)

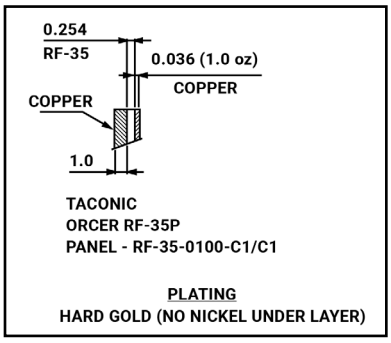


POWER HANDLING

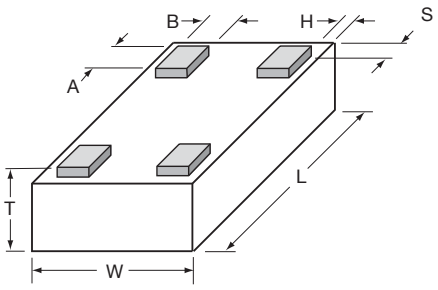
20W (Continuous)

PAD AND PCB RECOMMENDATION (TOP VIEW)





DIMENSIONS



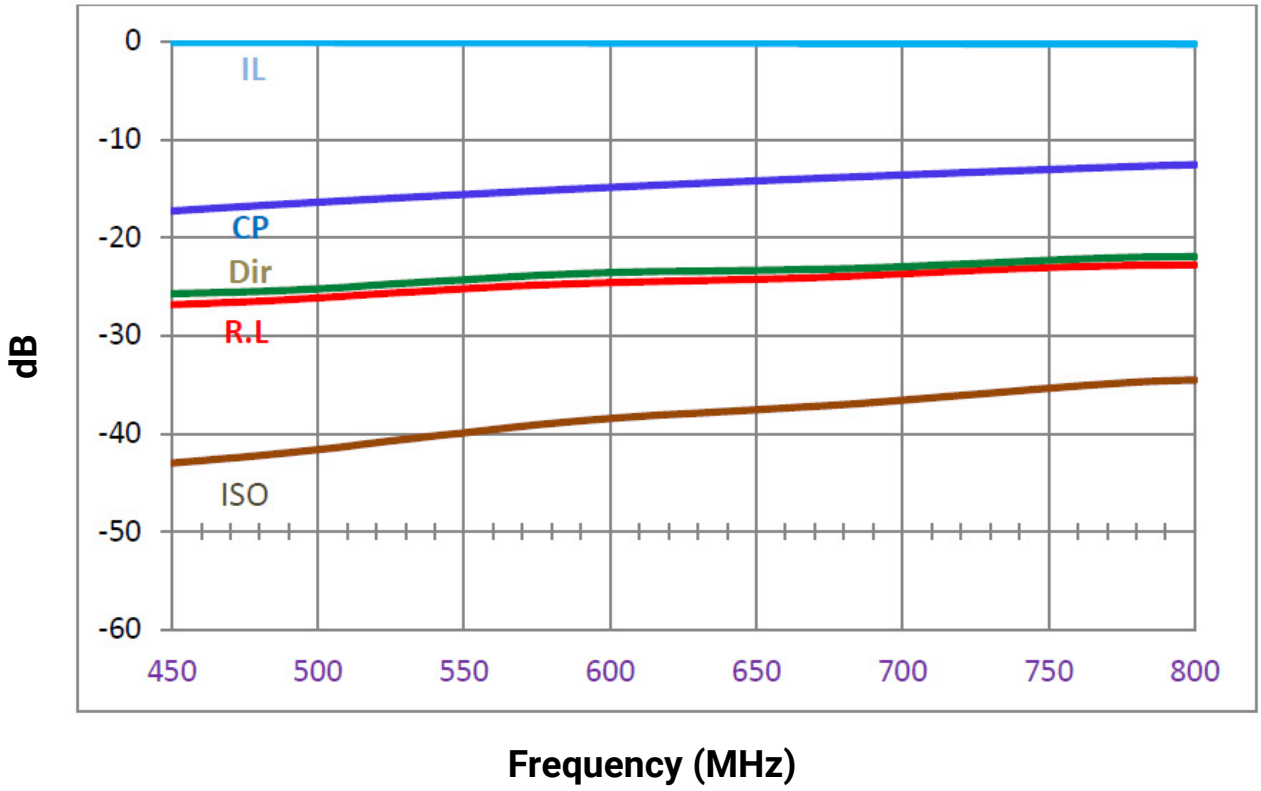
mm (inches)

L	7.0±0.3
W	4.0±0.2
T	1.2 max
A	1.1±0.1
B	0.6±0.1
D	3.2±0.1
E	2.0±0.1
F	4.5±0.1

ELECTRICAL CHARACTERISTICS

Part Number	Frequency (MHz)	Coupling (dB)	Insertion Loss (dB)	V.S.W.R	Directivity (dB)
CP2816A0615ANTR	480 - 750	-15 ± 2	-0.8	1.3	-14

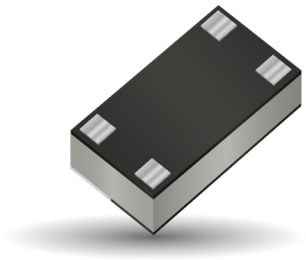
TYPICAL ELECTRICAL PERFORMANCE



Thin-Film RF/Microwave Directional Couplers

High Directivity Directional Coupler

CP2816A0675ANTR



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APPLICATIONS

- Defense Applications
- UHF/VHF Radios
- Handheld Systems
- Radar
- Commercial Aerospace
- Base Station

FEATURES

- Small size: 2816
- Band: 600 - 750 MHz
- Characteristic impedance: 50Ω
- Operating / Storage temp: -40°C - +105°C
- Low profile
- Rugged construction
- RoHS compliant

HOW TO ORDER

CP	2816	A	0675	A	N	TR
Series	Case Size	Type	Frequency (MHz)	Sub-Type	LGA Termination	Taped & Reeled Lead Free

QUALITY INSPECTION

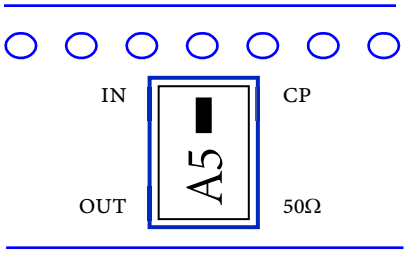
Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I_R, 4 hours

TERMINATION

Nickel/Lead Free solder coating compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

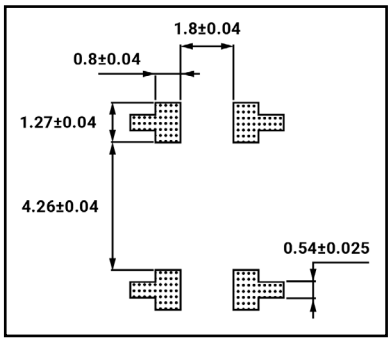
ORIENTATION IN TAPE (TOP VIEW)

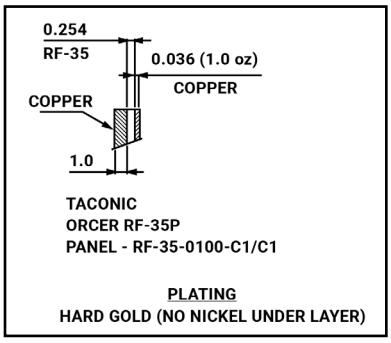


POWER HANDLING

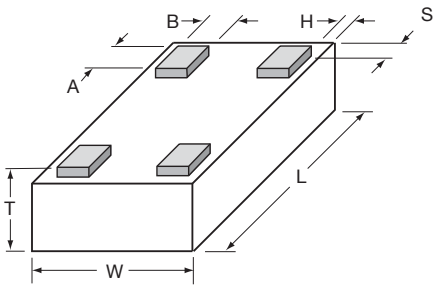
20W (Continuous)

PAD AND PCB RECOMMENDATION (TOP VIEW)





DIMENSIONS



mm (inches)

L	7.0±0.3
W	4.0±0.2
T	1.2 max
A	1.1±0.1
B	0.6±0.1
D	3.2±0.1
E	2.0±0.1
F	4.5±0.1