

In-building Wireless Passive Products and Antennas

November 2023 Ordering Guide

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VEX Files for all CommScope in-building wireless passive products and antennas are available directly from iBwave Account Owner or you can contact WISupport at WISupport.OmniTracker@commscope.com to obtain VEX Files.

Upon request to iBwave, CommScope will be notified to approve access to the CommScope components database.

Passive Devices

CommScope offers the passive devices that power many of the world’s most efficient wireless networks. Our splitters, couplers, tappers and termination are manufactured to the highest standards to ensure that active components in the network function properly. We pay special attention to soldering, sealing, and the use of non-ferric-based designs to prevent network-crippling passive intermodulation (PIM) often caused by poor connections and vibrations.

By delivering performance and longevity, our passive devices help operators optimize their OpEx while maximizing their network efficiency.

Tappers

Tappers support indoor and outdoor applications in the 400 MHz TETRA, 450/700/800 LTE band, 900 MHz cellular/GSM band, PCS/DCS-1800 band, 3G and 4G band to 2700 MHz, 5G band to 3500MHz and 4900MHz and LAA band to 6000MHz. Each unit couples a defined fraction of high-power cellular signal with minimal reflections or loss. The wide frequency range is ideal for multiband antennas, radiating cable systems and in-wire base stations.

Description	PIM	Connector Type	Part Number	
Low PIM Tappers				
340–960/1695–2700/3500-4500/4900-6000 MHz				
5 dB	-163dBc for N type, -165dBc for 4.3-10 type	4.3-10 Female	CT-5-TUW-43-I6	
6 dB		N Female	CT-5-TUW-NI6	
		4.3-10 Female	CT-6-TUW-43-I6	
8 dB		N Female	CT-6-TUW-NI6	
		4.3-10 Female	CT-8-TUW-43-I6	
10 dB		N Female	CT-8-TUW-NI6	
		4.3-10 Female	CT-10-TUW-43-I6	
15 dB		N Female	CT-10-TUW-NI6	
		4.3-10 Female	CT-15-TUW-43-I6	
20 dB		N Female	CT-15-TUW-NI6	
		4.3-10 Female	CT-20-TUW-43-I6	
30 dB		N Female	CT-20-TUW-NI6	
		4.3-10 Female	CT-30-TUW-43-I6	
			N Female	CT-30-TUW-NI6



10 dB Tapper
4.3-10 Female Connector
(CT-10-TUW-43-I6)



10 dB Tapper
N Female Connector
(CT-10-TUW-NI6)

Air Directional Couplers

These couplers are ideal for complex applications. They enforce very low passive intermodulation, minimize RF insertion loss and enable multiband frequency coverage.

Description	PIM	Connector Type	Part Number
Air Directional Couplers 555-6000 MHz			
5 dB	-163dBc for N type, -165dBc for 4.3-10 type	4.3-10 Female	C-5-UW-43-AI6
6 dB		N Female	C-6-UW-N-AI6
		4.3-10 Female	C-6-UW-43-AI6
8 dB		N Female	C-8-UW-N-AI6
		4.3-10 Female	C-8-UW-43-AI6
10 dB		N Female	C-10-UW-N-AI6
		4.3-10 Female	C-10-UW-43-AI6
13 dB		N Female	C-13-UW-N-AI6
		4.3-10 Female	C-13-UW-43-AI6
15 dB		N Female	C-15-UW-N-AI6
		4.3-10 Female	C-15-UW-43-AI6
20 dB		N Female	C-20-UW-N-AI6
		4.3-10 Female	C-20-UW-43-AI6
30 dB		N Female	C-30-UW-N-AI6
		4.3-10 Female	C-30-UW-43-AI6

Description	PIM	Connector Type	Part Number
Low PIM Air Directional Couplers 340-3800 MHz			
6 dB	-160dBc	4.3-10 Female	C-6-TCPUSEW-43AI6
		N Female	C-6-TCPUSEW-N-AI6
10 dB		4.3-10 Female	C-10-TCPUSEW-43AI6
		N Female	C-10-TCPUSEW-N-AI6
15 dB		4.3-10 Female	C-15-TCPUSEW-43AI6
		N Female	C-15-TCPUSEW-N-AI6
20 dB		4.3-10 Female	C-20-TCPUSEW-43AI6
		N Female	C-20-TCPUSEW-N-AI6
30 dB		4.3-10 Female	C-30-TCPUSEW-43AI6
		N Female	C-30-TCPUSEW-N-AI6



6 dB Low PIM Coupler
DIN Female Connector
(C-6-TCPUSE-D-AI6)



6 dB Low PIM Coupler
N Female Connector
(C-6-TCPUSE-N-AI6)



10 dB Coupler
N Female Connector
(C-10-UW-N-AI6)



10 dB Coupler
4.3-10 N Female Connector
(C-10-UW-43-AI6)

Hybrid Matrix

Multiband 4x4 and 3x3 Hybrid Matrices combine 4 or 3 input signals into 4 or 3 output signals with minimum dissipative loss. Hybrid Matrices can be used for indoor or outdoor applications. Hybrid Matrices use air dielectric technology and as a result offer very low intermodulation characteristics over a wider frequency range. A wide frequency range allows for use with single or multiband signal sources. The device is designed to maximize the isolation and minimize intermodulation.

Description	PIM	Connector Type	Part Number
Low PIM 4x4 High Power Hybrid Matrix 555 - 6000 MHz, 6.2 dB	-162 dBc at 617–960/1695– 2700 MHz	4.3-10 Female	H-4x4-UW-43-AI6
Low PIM 3x3 High Power Hybrid Matrix 555-2700 MHz, 5.0 dB	-162 dBc	4.3-10 Female	H-3X3-CPUSE-43-AI6



4x4 Hybrid Matrix
(H4X4-CPUSE-NAI6)



3x3 Hybrid Matrix
(H-3X3-CPUSE-43-AI6)

Hybrid Air Dielectric Couplers

Hybrid couplers combine two wireless carriers to a single antenna feed or cable. They maximize isolation in wireless bands by using a few solder joints and contain an air dielectric to minimize loss and enhance reliability. One feed requires the termination of an output port in 50 ohms and results in a 3 dB loss per signal. Using both outputs for two similar feeds eliminates the loss.

Description	PIM	Frequency Band	Connector Type	Part Number
Hybrid Air Dielectric Couplers				
3.1 dB	-165dBc	340–3800 MHz	4.3-10 Female	H-3-TCPUSEW-43-AI6
	-163dBc	555–6000 MHz	N Female	H-3-UW-N-AI6
	-165dBc	555–6000 MHz	4.3-10 Female	H-3-UW-43-AI6



Hybrid Coupler
(H-3-UW-N-AI6)



Hybrid Coupler
(H-3-TCPUSEW-43-AI6)

Power Splitters

Multiband high-power splitters evenly distribute high-power signals with minimal reflections or loss. The reactive design employs no resistors, eliminating potential PIM damage. The SMR, PCS, UMTS and LTE frequency range enables use with single or multiband antennas and radiating cable systems. Minimal solder joints and an air dielectric enhance reliability.

Description	PIM	Connector Type	Part Number
Low Power Splitters 555-6000 MHz			
Two-Way	-153 dBc	N Female	S-2-UW-L-NI53
	-153 dBc	4.3-10 Female	S-2-UW-L-43I53
Three-Way	-153 dBc	N Female	S-3-UW-L-NI53
	-153 dBc	4.3-10 Female	S-3-UW-L-43I53
Four-Way	-153 dBc	N Female	S-4-UW-L-NI53
	-153 dBc	4.3-10 Female	S-4-UW-L-43I53



Four-Way Low Power Splitter
N Female Connector
(S-4-UW-NI53)

Description	PIM	Frequency Band	Connector Type	Part Number
Multiband Low PIM Reactive High Power Splitters				
Two-Way	-163dBc for N type, -165dBc for 4.3-10 type	340–3800 MHz	4.3-10 Female	S-2-TCPUSEW-H-43I6
			N Female	S-2-TCPUSEW-H-NI6
Three-Way		340–3800 MHz	4.3-10 Female	S-3-TCPUSEW-H-43I6
			N Female	S-3-TCPUSEW-H-NI6
Four-Way		340–3800 MHz	4.3-10 Female	S-4-TCPUSEW-H-43I6
			N Female	S-4-TCPUSEW-H-NI6
Ultra Wideband Low PIM Reactive High Power Splitters				
Two-Way	-163dBc for N type, -165dBc for 4.3-10 type	555–6000 MHz	N Female	S-2-UW-H-NI6
			4.3-10 Female	S-2-UW-H-43-I6
Three-Way		555–6000 MHz	N Female	S-3-UW-H-NI6
			4.3-10 Female	S-3-UW-H-43-I6
Four-Way		555–6000 MHz	N Female	S-4-UW-H-NI6
			4.3-10 Female	S-4-UW-H-43-I6



Two-Way Multiband Low PIM
Splitter N Female Connector
(S-2-TCPUSEW-H-NI6)



Four-Way Multiband Low PIM
Splitter N Female Connector
(S-4-TCPUSEW-H-NI6)



Three-Way Ultra Wideband
Splitter 4.3-10 Female Connector
(S-3-UW-H-43-I6)

ValuDAS™ Passive DAS

ValuDAS™ brand of CommScope is ideal for cost saving with considering the minimum specs of RF requirements.

Description	PIM	Frequency Range	Connector Type	Part Number
ValuDAS™ Air Directional Couplers 578–3800 MHz				
AIR DIRECTIONAL COUPLER, 6DB, 578-3800, 4.3-10, FEMALE	-160dBc	578-3800 MHz	4.3-10 Female	VD-C6-CPUSEW-43B
AIR DIRECTIONAL COUPLER, 8DB, 578-3800, 4.3-10, FEMALE				VD-C8-CPUSEW-43B
AIR DIRECTIONAL COUPLER, 10DB, 578-3800, 4.3-10, FEMALE				VD-C10-CPUSEW-43B
AIR DIRECTIONAL COUPLER, 13DB, 578-3800, 4.3-10, FEMALE				VD-C13-CPUSEW-43B
AIR DIRECTIONAL COUPLER, 15DB, 578-3800, 4.3-10, FEMALE				VD-C15-CPUSEW-43B
AIR DIRECTIONAL COUPLER, 20DB, 578-3800, 4.3-10, FEMALE				VD-C20-CPUSEW-43B
AIR DIRECTIONAL COUPLER, 30DB, 578-3800, 4.3-10, FEMALE				VD-C30-CPUSEW-43B



6 dB ValuDAS™ Coupler
4.3-10 Female Connector
(VD-C6-CPUSEW-43B)

Description	PIM	Frequency Range	Connector Type	Part Number
ValuDAS™ Reactive Power Splitters 578–3800 MHz				
HIGH POWER SPLITTER, 2-WAY, 578-3800, 4.3-10, FEMALE	-160dBc	578-3800 MHz	4.3-10 Female	VD-S2-CPUSEW-H-43B
HIGH POWER SPLITTER, 3-WAY, 578-3800, 4.3-10, FEMALE				VD-S3-CPUSEW-H-43B
HIGH POWER SPLITTER, 4-WAY, 578-3800, 4.3-10, FEMALE				VD-S4-CPUSEW-H-43B



2-Way ValuDAS™ Splitter
4.3-10 Female Connector
(VD-S2-CPUSEW-H-43B)

Description	PIM	Frequency Range	Connector Type	Part Number
ValuDAS™ Hybrid Couplers				
HYBRID COUPLER, 3DB, 2X2, 578-3800, 4.3-10, FEMALE	-160dBc	578-3800 MHz	4.3-10 Female	VD-H2X2-CPUSEW-43B



ValuDAS™ Hybrid Coupler
4.3-10 Female Connector
(VD-H2x2-CPUSEW-H-43B)

Terminations

Terminations are ideal for high power applications. They cover up to 200 W and can be used to terminate unused/open RF ports.

Description	PIM	Connector Type	Part Number
Low PIM Terminations 340–6000 MHz			
10 Watt	-165 dBc	4.3-10 Male	T-10-UW-43-M-I6
30 Watt	-165 dBc	4.3-10 Male	T-30-UW-43-M-I6
Low PIM Terminations 0–6000 MHz			
50 Watt	-165 dBc	4.3-10 Male	T-50-UW-43-M-I6
100 Watt	-165 dBc	4.3-10 Male	T-100-UW-43-M-I6
200 Watt	-165 dBc	4.3-10 Male	T-200-UW-43-M-I6



100 Watt
4.3-10 Male Connector
(T-100-UW-43-M-I6)



30 Watt
4.3-10 Female Connector
(T-30-UW-43-M-I6)



50 Watt
4.3-10 Male Connector
(T-50-UW-43-M-I6)

Description	Connector Type	Part Number
Terminations NON – PIM rated 0–6000 MHz		
2 Watt	4.3-10 Male	T-2-UW-43-M
10 Watt	4.3-10 Male	T-10-UW-43-M
25 Watt	4.3-10 Male	T-25-UW-43-M
50 Watt	4.3-10 Male	T-50-UW-43-M
100 Watt	4.3-10 Male	T-100-UW-43-M



2 Watt
4.3-10 Male Connector
(T-2-UW-43-M)



100 Watt
4.3-10 Male Connector
(T-100-UW-43-M)

Attenuators

Attenuators are ideal where output power need to be tuned for Low/Medium Power application.

Description	Connector Type	Part Number
Attenuators DC–6000 MHz, NON-PIM Rated 4.3-10		
1dB, Max. Power 2W	4.3-10 Male to Female	AT-1-43-MF
3dB, Max. Power 2W		AT-3-43-MF
6dB, Max. Power 2W		AT-6-43-MF
8dB, Max. Power 2W		AT-8-43-MF
10dB, Max. Power 2W		AT-10-43-MF
13dB, Max. Power 2W		AT-13-43-MF
15dB, Max. Power 2W		AT-15-43-MF
20dB, Max. Power 2W		AT-20-43-MF
30dB, Max. Power 2W		AT-30-43-MF



3 dB Attenuator
4.3-10 Male -4.3-10 Female
Connector (AT-10-43-MF)



4.3-10 Male -4.3-10 Female
Connector (AT-10-43-MF)

Description	PIM	Connector Type	Part Number
Low PIM Attenuators 555–6000 MHz, PIM Rated			
6 dB	-165 dBc	4.3-10 Male to Female	AT-6-UW-43-MF16
10 dB			AT-10-UW-43-MF16
15 dB			AT-15-UW-43-MF16
20 dB			AT-20-UW-43-MF16
30 dB			AT-30-UW-43-MF16

Universal Bracket Kit

Description	Dimensions (HxWxL) (in)/(mm)	Part Number
Universal Bracket Kit Includes nylon plugs and screws Color: Silver (qty 5)	0.43" x 0.59" x 3.35" /11 x 15 x 85	42396A-17



DAS Antennas

To add spot coverage in high-traffic areas, CommScope offers a family of distributed antenna systems (DAS), mounting hardware and accessories that enhance wireless coverage. Designed for simple installation and minimal visual impact, our in-building and outdoor antennas feature a multi-band design that supports a wide range of frequencies with one small antenna.

CommScope's family of DAS antennas are designed to add spot coverage in difficult-to-cover areas such as buildings, parking garages, airports and stadiums. Each antenna is designed to support all current and future 5G applications and engineered for high performance. For example, with our low-PIM antennas, we pay particular attention to details. That's why we solder all joints and utilize only the best quality components — from copper elements to low-PIM connectors and pigtails — resulting in products that deliver homogeneous patterns and higher gain values where it matters.

Stadium and Venue DAS Antennas

Description	Frequency Band (MHz)	HBW	VBW	RF (Connector)	Port Configuration	Part Number
OTH MIMO 2x2	617 – 960 1695 - 2700 3300 - 4200	65-71	62-78	4.3-10 Female	2x 617-4200 MHz	CMAX-LHM2-60-I53
		29-38	70-73			CMAX-LHM2-30-I53
		30	30			CMAX-LHM2-3030-I53
		19-27	67-76			CMAX-LHM2-22-I53



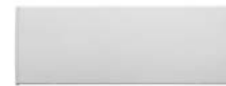
CMAX-LHM2-60-I53



CMAX-LHM2-30-I53



CMAX-LHM2-3030-I53



CMAX-LHM2-22-I53

Description	Frequency Band (MHz)	HBW	VBW	RF (Connector)	Port Configuration	Part Number
OTH MIMO 4x4	1695 – 2700 3300 – 4200 4900-6000	60	60	4.3-10 Female	4x 1695-4200 MHz	CMAX-HM4-60-I53
		30	60			CMAX-HM4-30-I53



CMAX-HM4-30-I53



CMAX-HM4-60-I53

In-Building Directional SISO Antennas

Description	Frequency Band (MHz)	HBW	VBW	RF (Connector)	Part Number
Directional SISO	350 - 470 617 - 960 1710 - 2700	45-98	45-62	N Female	CMAX-D-TCPUSEI53
	698 - 960 1710 - 2700 3300 - 3800	34-85	39-73	4.3-10 Female	CELLMAX-D-43-WI
	698 - 960 1710 - 2700	54-128	38-85	N Female	CELLMAX-D-CPUSE
	617 - 960 1695 - 2700 3300 - 3800 4900 - 6000	58-90	50-85	4.3-10 Female	CMAX-D-43-UW-I53



CMAX-D-TCPUSEI53



CELLMAX-D-43-WI



CELLMAX-D-CPUSE



CMAX-D-43-UW-I53

Outdoor Directional SISO Antennas

Description	Frequency Band (MHz)	HBW	VBW	RF (Connector)	Part Number
Directional SISO Outdoor Antenna	698 - 960 1710 - 2700	60	30	4.3-10 Female	CMAX-EXT-43-I53
Log Periodic Outdoor Antenna	698 - 960 1400 - 1600 1695 - 2700 3300 - 3800	69-92	51-66		CMAX-YG-CPUSEW-I53



CMAX-EXT-43-I53



CMAX-YG-CPUSEW-I53

Directional MIMO Antennas

Description	Frequency Band (MHz)	HBW	VBW	RF (Connector)	Port Configuration	Part Number
Directional MIMO 2x2	698 - 960 1695 - 2700 3300 - 4200	60-77	55-70	4.3-10 Female	2x 698-4200 MHz	CMAX-DMF2-43-WI53
	617 - 960 1695 - 2700 3300 - 4200 4800 - 6000	64-75	60-72		2x 617-6000 MHz	CMAX-DMF-43-UWI53



CMAX-DMF2-43-WI53



CMAX-DMF-43-UWI53

In-Building DAS SISO Omni Antennas

Description	Frequency Band (MHz)	HBW	VBW	RF (Connector)	Part Number
Omni SISO	350 – 520 617 – 960 1695 – 2700 3300 – 4200 4900 – 6000	360	NA	4.3-10 Female	CMAX-OUS-TUW-43I
	617 – 960 1400-1600 1710 – 2700 3300-4200 5150-5925	360	NA		CMAX-O-43-UW-I53
	698 - 960 1695 - 2700 3100 - 4200	360	NA		CELLMAX-O-43-WI
		360	NA		CMAX-OUS-43-I53
	617 - 960 1400 - 1500 1695 - 2700 3300 - 4200 4900 - 6000	360	NA		CMAX-OUS1-UW43-I53



In-Building Omni
(CMAX-OUS-TUW-43I)



In-Building Omni
(CMAX-O-43-UW-I53)



In-Building Omni
(CELLMAX-O-43-WI)



In-Building Omni
(CMAX-OUS-43-I53)



In-Building Omni
(CMAX-OUS1-UW43-I53)

In-Building DAS MIMO Omni Antennas

Description	Frequency Band (MHz)	HBW	VBW	RF (Connector)	Port Configuration	Part Number
Omni MIMO 4x4	617 - 960 1695 - 2700 3300 - 4200 4800 - 6000	360	NA	4.3-10 Female	4x 617-6000 MHz	CMAX-OMF7-43-UWI53*
	1695 - 2700 3300 - 4200 4600 - 6000	360	NA		4x 1695-6000 MHz	CMAX-OMF9-43-UWI53
Omni MIMO 2x2	617 - 960 1400 - 1500 1695 - 2700 3300 - 4200 4900 - 6000	360	NA		2x 617-6000 MHz	CMAX-OMF6-43-UWI53*
	617 - 960 1695 - 2700 3300 - 4200 4800 - 6000	360	NA		2x 617-6000 MHz	CMAX-OMF8-43-UWI53

*Please check next page for available absorbers



In-Building Omni
(CMAX-OMF7-43-WI53)



In-Building Omni
(CMAX-OMF9-43-UWI53)



In-Building Omni
(CMAX-OMF6-43-UWI53)



In-Building Omni
(CMAX-OMF8-43-UWI53)

Mounting Kits

Description	Part Number
Ceiling Mounting Kits	
For CMAX-O-43-UW-i53	7760591
Pole Mounting Kit	
For Stadium Antennas	7814722



Ceiling Mounting Kit
(7760591)



Pole Mounting Kit
(7814722)

Antenna Kits

Description	Part Number
Antenna Kits	
Omni Absorber ground plane to improve VSWR on metal ceilings for OMF6,OMF8,OMF9and OUS1	7847185
Omni Absorber ground plane to improve VSWR on metal ceilings for OMF7 and OUS	7850475



Absorber ground plane
(7847185)



Absorber ground plane
(7850475)

Antenna Clamps

Description	Part Number
Antenna Clamps	
Omni Indoor Antenna Clamp 1	7705125
Clamp for Cell-Max™ Omnidirectional In-building Antennas	7543994



Omni Indoor Antenna Clamp
(7705125)



Cell-Max™ Omnidirectional Clamp
(7543994)

Ceiling Matrix In-house Antennas

Material	Description	Ceiling Type		
		Suspended Panel Ceiling Non-metallic Ceiling	Exposed Concrete Closed ceiling, no access from above	Metal Ceiling Impact on antenna performance
Omni-Directional SISO Indoor Antennas				
CMAX-OUS-TUW-43I	350-6000, LOW PIM, 4.3-10, FEMALE	✓	7705125	7705125
CELLMAX-O-43WI	698-960/1710-2700,3100-4200 4.3-10, FEMALE	✓	7543994	-
CMAX-O-43-UW-I53	617-6000, LOW PIM, 4.3-10, FEMALE	✓	7705125	7705125
CMAX-OUS-43-I53	698-4200, LOW PIM, 4.3-10, FEMALE	✓	NA	7846351*
CMAX-OUS1-UW43-I53	617-6000, LOW PIM, 4.3-10, FEMALE	✓	NA	7847185*
Directional MIMO Indoor Antennas				
CMAX-OMF6-43-UWI53	617-6000 MHz, LOW PIM, 4.3-10, FEMALE	✓	NA	7847185**
CMAX-OMF8-43-UWI53	617-6000, LOW PIM, 4.3-10, FEMALE	✓	7705125	7705125, 7847185*
CMAX-OMF9-43-UWI53	1695-6000, LOW PIM,4.3-10, FEMALE	✓	7705125	7705125, 7847185*
CMAX-OMF7-43-UWI53	617-6000, LOW PIM, 4.3-10, FEMALE	✓	NA	7850475**
		This antenna can be installed directly to this ceiling type. No additional parts needed	Additional parts are needed to fix antennas	Additional parts are needed to fix antennas *Glue should be used to fix the absorbers ** To be fixed with Plastic Nut

CommScope pushes the boundaries of communications technology with game-changing ideas and ground-breaking discoveries that spark profound human achievement. We collaborate with our customers and partners to design, create and build the world's most advanced networks. It is our passion and commitment to identify the next opportunity and realize a better tomorrow. Discover more at commscope.com



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