Amphenol
Turkey&MiddleEast

SITE SOLUTIONS
for Wireless Infrastructure

Performance-Driven Technology for Cellular Networks

ONE SOURCE.

GLOBAL SITE SOLUTIONS™

Amphenol is a leading global solutions provider for wireless infrastructure systems. Whether it's a complex base station, a small DAS network or an In-Building System, we supply over 6,000 products with best-in-class performance.

With Amphenol, OEMs and operators have the convenience of a one-stop shop, not only for quality antennas, but for transmission line products like feeder cable, hybrid fiber, surge arrestors and connectors as well as RF peripherals like TMAs, combiners, couplers and splitters. All products support next generation wireless communication systems.

Amphenol offers years of expertise in product design, development and engineering along with an unparalleled commitment to customer service.

Contents

Site Solutions for Wireless Infrastructure

Amphenol Antenna Solutions is a single source for wireless infrastructure offering not only quality base station and Small Cell antennas, but also transmission line products like feeder cable, hybrid fiber, surge arrestors and connectors as well as RF peripherals like TMAs, combiners, couplers and splitters.

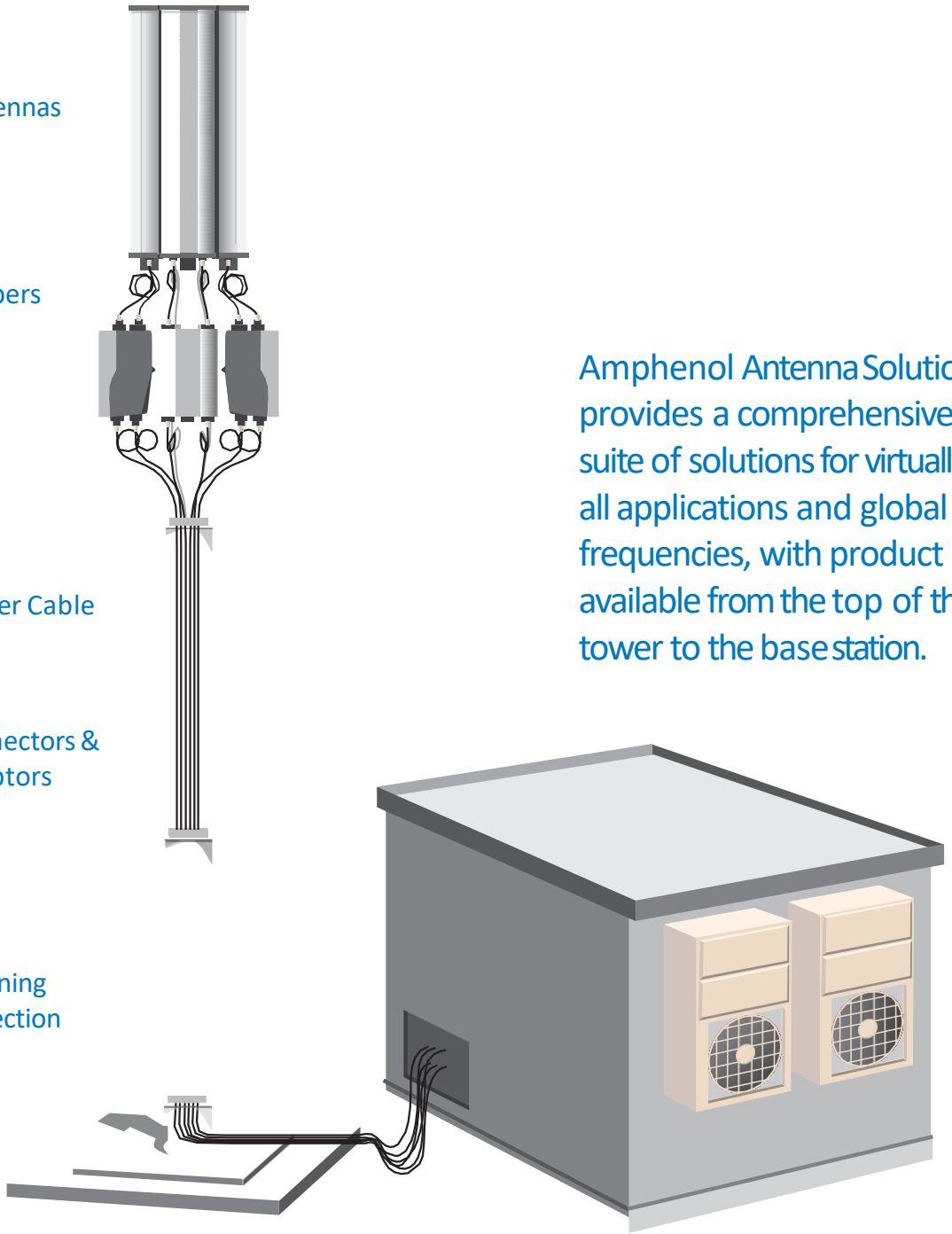
Antennas

Jumpers

Feeder Cable

Connectors & Adaptors

Lightning Protection



Amphenol Antenna Solutions provides a comprehensive suite of solutions for virtually all applications and global frequencies, with product available from the top of the tower to the base station.

Base Station Shelter

Jumper Cable Assemblies

Amphenol's premium **Jumper Cable** options are designed for outdoor applications under extreme conditions with high flexibility and small bending diameters. Cable assemblies are available in a variety of lengths and connector combinations.

Connectors & Adaptors

Amphenol has been a leading global interconnect solutions provider since 1932 and offers a multitude of products for wireless infrastructure. Our fast fitting, precision grade RF **Connectors & Adaptors** are available in 4.3-10, 7/16-DIN and N-Type with male and female interfaces. One-piece pin design with O-ring seals. Suited for both copper and aluminum cables.

Feeder Cable

Whether it's a connection to a single component or a fully integrated RF transmission line system, Amphenol can supply your RF **Feeder Cable**. Select from flexible or superflexible, copper or aluminum with standard or fire retardant jackets in 1/4", 3/8", 1/2", 7/8", 1-1/4" or 1-5/8".

Accessories & Tools

All you need to get the job done - **Weather-proofing Boots**, **Weather-proofing Tape**, **Grounding Kits**, **Feeder Clamps** and more.

Easy to install **weather-proofing** options to seal out the environment and protect your cable.

Grounding kits for discharging lightning strikes that occur to ground. Available for 1/4", 1/2", 7/8", 1-1/4" and 1-5/8".

High-grade **feeder clamps** designed for trouble-free installation. A variety of types available depending on the number of cables to be secured.

Nomenclature Guide for Jumper Cables

12 HF 4SMR 4SMR xxx

1 2 3 4 5

1 Cable Size

11 =	1 - 1/4"
12 =	1/2"
14 =	1/4"
15 =	1 - 5/8"
21 =	2 - 1/4"
38 =	3/8"
58 =	5/8"
78 =	7/8"
K4 =	KSR400

2 Cable Type

FLS =	Superflexible Fire Resistant Low Loss, LSZH	LFS =	Standard Fire Resistant Low Loss, LSZH
FLR =	Superflexible Flame Retardant Low Loss, LSZH	LRS =	Standard Flame Retardant Low Loss, LSZH
HF =	Superflexible	SFS =	Standard Fire Resistant, LSZH
HFF =	Superflexible Fire Resistant	SLF =	Standard Fire Resistant Low Loss
HFL =	Superflexible Low Loss		
HFR =	Superflexible Flame Retardant	SLR =	Standard Flame Retardant Low Loss
HFV =	Superflexible improved VSWR		
HFS =	Superflexible Fire Resistant, LSZH	SRS =	Standard Flame Retardant, LSZH
HLF =	Superflexible Fire Resistant Low Loss	ST =	Standard
		STF =	Standard Fire Resistant
HLR =	Superflexible Flame Retardant Low Loss	STL =	Standard Low Loss
		STR =	Standard Flame Retardant
HRS =	Superflexible Flame Retardant, LSZH		

3 & 4 Connector A & Connector B

4HF =	4.3-10 Hand Screw Female
4HFR =	4.3-10 Hand Screw Female Right Angle
4HM =	4.3-10 Hand Screw Male
4HMR =	4.3-10 Hand Screw Male Right Angle
4SF =	4.3-10 Screw Female
4SFR =	4.3-10 Screw Female Right Angle
4SM =	4.3-10 Screw Male
4SMR =	4.3-10 Screw Male Right Angle
DF =	7/16-DIN Female
DFR =	7/16-DIN Female Right Angle
DM =	7/16-DIN Male
DMR =	7/16-DIN Male Right Angle
NF =	N Female
NFR =	N Female Right Angle
NM =	N Male
NMR =	N Male Right Angle

5 Length

005 =	0.5 m
010 =	1.0 m
015 =	1.5 m
020 =	2.0 m
025 =	2.5 m
...	
095 =	9.5 m
100 =	10.0 m

Lengths from 0.5m to 10m available

Jumper Cable Product Reference

Model	Cable Size	Cable Type	Frequency	Connector A	Connector B	Length
12HF4SM4SMxxx	When ordering, replace the "x" in the model number with the length of cable in meters. See examples below:					
12HF4SM4SM005	1/2"	Superflexible - PE Jacket	DC-3.8 GHz	4.3-10 Screw Male	4.3-10 Screw Male	0.5 m
12HF4SM4SM010						1.0 m
12HF4SM4SM015						1.5 m
12HF4SM4SM020						2.0 m
12HF4SM4SM030						3.0 m
12HF4SM4SM050						5.0 m
12HF4SM4SMRxxx	When ordering, replace the "x" in the model number with the length of cable in meters. See examples below:					
12HF4SM4SMR005	1/2"	Superflexible - PE Jacket	DC-3.8 GHz	4.3-10 Screw Male	4.3-10 Screw Male Right Angle	0.5 m
12HF4SM4SMR010						1.0 m
12HF4SM4SMR015						1.5 m
12HF4SM4SMR020						2.0 m
12HF4SM4SMR030						3.0 m
12HF4SM4SMR050						5.0 m
12HF4SMDMxxx	When ordering, replace the "x" in the model number with the length of cable in meters. See examples below:					
12HF4SMDM005	1/2"	Superflexible - PE Jacket	DC-3.8 GHz	4.3-10 Screw Male	7/16-DIN Male	0.5 m
12HF4SMDM010						1.0 m
12HF4SMDM015						1.5 m
12HF4SMDM020						2.0 m
12HF4SMDM030						3.0 m
12HF4SMDM050						5.0 m
12HF4SMDMRxxx	When ordering, replace the "x" in the model number with the length of cable in meters. See examples below:					
12HF4SMDMR005	1/2"	Superflexible - PE Jacket	DC-3.8 GHz	4.3-10 Screw Male	7/16-DIN Male Right Angle	0.5 m
12HF4SMDMR010						1.0 m
12HF4SMDMR015						1.5 m
12HF4SMDMR020						2.0 m
12HF4SMDMR030						3.0 m
12HF4SMDMR050						5.0 m

Jumper Cables

Model	Cable Size	Cable Type	Frequency	Connector A	Connector B	Length
12HFDMDMxxx	When ordering, replace the "x" in the model number with the length of cable in meters. See examples below:					
12HFDMDM005	1/2"	Superflexible - PE Jacket	DC-3.8 GHz	7/16-DIN Male	7/16-DIN Male	0.5 m
12HFDMDM010						1.0 m
12HFDMDM015						1.5 m
12HFDMDM020						2.0 m
12HFDMDM030						3.0 m
12HFDMDM050						5.0 m
12HFDMDMRxxx	When ordering, replace the "x" in the model number with the length of cable in meters. See examples below:					
12HFDMDMR005	1/2"	Superflexible - PE Jacket	DC-3.8 GHz	7/16-DIN Male	7/16-DIN Male Right Angle	0.5 m
12HFDMDMR010						1.0 m
12HFDMDMR015						1.5 m
12HFDMDMR020						2.0 m
12HFDMDMR030						3.0 m
12HFDMDMR050						5.0 m
12HFNMNMxxx	When ordering, replace the "x" in the model number with the length of cable in meters. See examples below:					
12HFNMNM005	1/2"	Superflexible - PE Jacket	DC-3.0 GHz	N Male	N Male	0.5 m
12HFNMNM010						1.0 m
12HFNMNM015						1.5 m
12HFNMNM020						2.0 m
12HFNMNM030						3.0 m
12HFNMNM050						5.0 m
12ST4SM4SMxxx	When ordering, replace the "x" in the model number with the length of cable in meters. See examples below:					
12ST4SM4SM005	1/2"	Standard - PE Jacket	DC-3.8 GHz	4.3-10 Screw Male	4.3-10 Screw Male	0.5 m
12ST4SM4SM010						1.0 m
12ST4SM4SM015						1.5 m
12ST4SM4SM020						2.0 m
12ST4SM4SM030						3.0 m
12ST4SM4SM050						5.0 m
12STDMDMxxx	When ordering, replace the "x" in the model number with the length of cable in meters. See examples below:					
12STDMDM005	1/2"	Standard - PE Jacket	DC-3.8 GHz	7/16-DIN Male	7/16-DIN Male	0.5 m
12STDMDM010						1.0 m
12STDMDM015						1.5 m
12STDMDM020						2.0 m
12STDMDM030						3.0 m
12STDMDM050						5.0 m

Please contact your sales representative for exact specifications.

Additional Jumper Cable Products

Model	Cable Size	Cable Type	Frequency	Connector A	Connector B
14HF4SM4SMxxx	1/4"	Superflexible - PE Jacket	DC-3.8 GHz	4.3-10 Screw Male	4.3-10 Screw Male
14HF4SMDMxxx				4.3-10 Screw Male	7/16-DIN Male
14HFDMDMxxx				7/16-DIN Male	7/16-DIN Male
38HF4SM4SMxxx	3/8"	Superflexible - PE Jacket	DC-3.8 GHz	4.3-10 Screw Male	4.3-10 Screw Male
38HF4SMDMxxx				4.3-10 Screw Male	7/16-DIN Male
38HFDMDMxxx				7/16-DIN Male	7/16-DIN Male
78ST4SM4SMxxx	7/8"	Standard - PE Jacket	DC-3.8 GHz	4.3-10 Screw Male	4.3-10 Screw Male
78ST4SMDMxxx				4.3-10 Screw Male	7/16-DIN Male
78STDMDMxxx				7/16-DIN Male	7/16-DIN Male
11ST4SM4SMxxx	1-1/4"	Standard - PE Jacket	DC-3.8 GHz	4.3-10 Screw Male	4.3-10 Screw Male
11ST4SMDMxxx				4.3-10 Screw Male	7/16-DIN Male
11STDMDMxxx				7/16-DIN Male	7/16-DIN Male

Nomenclature Guide for RF Connectors

AC - 12 SW A - 4 HMR

1 2 3 4

1 Product Type	
AC =	RF Connectors

2 For Cable Size	
11 =	1 - 1/4"
12 =	1/2"
14 =	1/4"
15 =	1 - 5/8"
21 =	2 - 1/4"
38 =	3/8"
58 =	5/8"
78 =	7/8"
L3 =	LMR300
L4 =	LMR400
K4 =	KSR400

3 For Cable Type	
HF =	Superflexible
ST =	Standard
SWA =	Smooth Wall Aluminum
00 =	No additional type designation

4 Connector Type			
4SF =	4.3-10 Screw Female	4PMR =	4.3-10 Push/Pull Male Right Angle
4SFR =	4.3-10 Screw Female Right Angle	DF =	7/16-DIN Female
4HF =	4.3-10 Hand Screw Female	DFR =	7/16-DIN Female Right Angle
4HFR =	4.3-10 Hand Screw Female Right Angle	DM =	7/16-DIN Male
4HM =	4.3-10 Hand Screw Male	DMR =	7/16-DIN Male Right Angle
4HMR =	4.3-10 Hand Screw Male Right Angle	NF =	N Female
4SM =	4.3-10 Screw Male	NFR =	N Female Right Angle
4SMR =	4.3-10 Screw Male Right Angle	NM =	N Male
4PF =	4.3-10 Push/Pull Female	NMR =	N Male Right Angle
4PFR =	4.3-10 Push/Pull Female Right Angle	THMR =	TNC Type Hand Screw Male Right Angle
4PM =	4.3-10 Push/Pull Male		

RF Connector Product Reference

Model	Cable Size	Cable Type	Frequency	Connector Type	Installation Type
AC-12HF-4SM-F	1/2"	Superflexible - PE Jacket	DC-3.8 GHz	4.3-10 Screw Male	Assembly
AC-12HF-4SM-MM			DC-6 GHz	4.3-10 Screw Male	Assembly
AC-12HF-4SMR			DC-3.8 GHz	4.3-10 Screw Male Right Angle	Assembly
AC-12HF-4SF			DC-3.8 GHz	4.3-10 Screw Female	Assembly
AC-12HF-DM			DC-3 GHz	7/16-DIN Male	Assembly
AC-12HF-DMR			DC-3 GHz	7/16-DIN Male Right Angle	Assembly
AC-12HF-NM			DC-3 GHz	N Male	Assembly
AC-12ST-4SM		Standard - PE Jacket	DC-6 GHz	4.3-10 Screw Male	Assembly
AC-12ST-DM			DC-3 GHz	7/16-DIN Male	Assembly
AC-12ST-DMR			DC-3 GHz	7/16-DIN Male	Assembly
AC-12ST-NM			DC-3 GHz	N Male	Assembly
AC-12ST-NMR			DC-3 GHz	N Male Right Angle	Assembly
AC-12ST-NF			DC-3 GHz	N Female	Assembly
AC-78ST-DM	7/8"		DC-3 GHz	7/16-DIN Male	Assembly
AC-78ST-DF			DC-3 GHz	7/16-DIN Female	Assembly
AC-78ST-NM			DC-3 GHz	N Female	Assembly
AC-11ST-DM	1 - 1/4"		DC-3 GHz	7/16-DIN Female	Assembly

Nomenclature Guide for RF Adaptors

AD - DX 4SF 4SM

1 2 3 4 5

1 Product Type

AD =	Adaptor

2 Frequency Range

D =	DC-3 GHz
L =	350-2700 MHz
M =	555-2700 or 698-2700 MHz
H =	698-4000 MHz
I =	824-960 & 1710-2690 MHz
B =	DC-6 GHz

3 PIM Level

H =	High PIM [≥ -149 dBc]
N =	Normal PIM [≤ -150 dBc]
L =	Low PIM [≤ -153 dBc]
G =	Great PIM [≤ -155 dBc]
X =	Excellent PIM [≤ -160 dBc]

4 Connector A

4SF =	4.3-10 Screw Female	4PM =	4.3-10 Push/Pull Male
4FR =	4.3-10 Screw Female Right Angle	PMR =	4.3-10 Push/Pull Male Right Angle
4HF =	4.3-10 Hand Screw Female	DF =	7/16-DIN Female
HFR =	4.3-10 Hand Screw Female Right Angle	DFR =	7/16-DIN Female Right Angle
4HM =	4.3-10 Hand Screw Male	DM =	7/16-DIN Male
HMR =	4.3-10 Hand Screw Male Right Angle	DMR =	7/16-DIN Male Right Angle
4SM =	4.3-10 Screw Male	NF =	N Female
4MR =	4.3-10 Screw Male Right Angle	NFR =	N Female Right Angle
4PF =	4.3-10 Push/Pull Female	NM =	N Male
PFR =	4.3-10 Push/Pull Female Right Angle	NMR =	N Male Right Angle

5 Connector B

4SF =	4.3-10 Screw Female	4PM =	4.3-10 Push/Pull Male
4FR =	4.3-10 Screw Female Right Angle	PMR =	4.3-10 Push/Pull Male Right Angle
4HF =	4.3-10 Hand Screw Female	DF =	7/16-DIN Female
HFR =	4.3-10 Hand Screw Female Right Angle	DFR =	7/16-DIN Female Right Angle
4HM =	4.3-10 Hand Screw Male	DM =	7/16-DIN Male
HMR =	4.3-10 Hand Screw Male Right Angle	DMR =	7/16-DIN Male Right Angle
4SM =	4.3-10 Screw Male	NF =	N Female
4MR =	4.3-10 Screw Male Right Angle	NFR =	N Female Right Angle
4PF =	4.3-10 Push/Pull Female	NM =	N Male
PFR =	4.3-10 Push/Pull Female Right Angle	NMR =	N Male Right Angle

RF Adaptor Product Reference

Model	Frequency	Connector A Type	Connector B Type
AD-DXNMNFR	DC-3 GHz	N Male	N Female Right Angle
AD-DHNMRNF		N Male Right Angle	N Female
AD-BX4SFDM	DC-6 GHz	4.3-10 Screw Female	7/16-DIN Male
AD-BX4SFNM		4.3-10 Screw Female	N Male
AD-BX4SMNM		4.3-10 Screw Male	N Male
AD-BXDFDF-F		7/16-DIN Female	7/16-DIN Female

Nomenclature Guide for Feeder Cable

AAF - 12 - ST - IOAL

1 2 3 4

1 Product Type	
AAF =	Feeder Cable

2 Cable Size	
11 =	1 - 1/4”
12 =	1/2”
14 =	1/4”
15 =	1 - 5/8”
21 =	2 - 1/4”
38 =	3/8”
58 =	5/8”
78 =	7/8”
L3 =	LMR300
L4 =	LMR400
8U =	RG8/U

3 For Cable Type	
HF =	Superflexible
HFF =	Superflexible Fire Resistant
HFR =	Superflexible Flame Retardant
HFS =	Superflexible Fire Resistant Low Smoke
HRS =	Superflexible Flame Retardant Low Smoke
SFS =	Standard Fire Resistant Low Smoke
SRS =	Standard Flame Retardant Low Smoke
ST =	Standard
STF =	Standard Fire Resistant
STR =	Standard Flame Retardant

4 Conductor Material	
No Designator =	Copper inner & outer conductor
IOAL =	Aluminum-tape inner & outer conductor
OAL =	Copper inner & aluminum-tape outer conductor

Feeder Cable Product Reference

Model	Cable Size	Cable Type	Frequency	Conductor Material		Material	
				Inner	Outer	Dielectric	Jacket
AAF-12-HF	1/2”	Superflexible	DC-10.2 GHz	Copper-Clad Aluminum Wire	Copper-tape, Longitudinal Welded Spiral Corrugation	Foamed Polyethylene (PE) with Skin	Black Polyethylene, PE
AAF-12-ST		Standard	DC-8.8 GHz	Copper-Clad Aluminum Wire	Copper-tape, Longitudinal Welded Annular Corrugation	Foamed Polyethylene (PE) with Skin	Black Polyethylene, PE
AAF-12ST-IOAL		Standard	DC-8.8 GHz	Copper-Clad Aluminum Wire	Aluminum-tape, Longitudinal Welded Annular Corrugation	Foamed Polyethylene (PE)	Black Polyethylene, PE
AAF-78-ST	7/8”	Standard	DC-5 GHz	Copper Tube	Copper-tape, Longitudinal Welded Annular Corrugation	Foamed Polyethylene (PE) with Skin	Black Polyethylene, PE
AAF-78-ST-OAL		Standard	DC-5.2 GHz	Copper Tube	Aluminum-tape, Longitudinal Welded Annular Corrugation	Foamed Polyethylene (PE) with Skin	Black Polyethylene, PE
AAF-11-ST	1 - 1/4”	Standard	DC-3 GHz	Copper Tube	Annular Corrugated Copper Tube	Foamed Polyethylene (PE)	LLDPE (wall thickness > 1.2 mm)

Nomenclature Guide for Weather-proofing Boots

Cable to Panel Boots = **WRB-12HF4SF**
(1) (2) (3) (4)

Cable to Cable Boots = **B-12-14-0001**
(1) (2) (3) (4)

1 Product Type

WRB =	Cable-to-Panel Boot
B =	Cable-to-Cable Boot

2 Cable Size A

11 =	1 - 1/4”
12 =	1/2”
14 =	1/4”
15 =	1 - 5/8”
21 =	2 - 1/4”
38 =	3/8”
58 =	5/8”
78 =	7/8”

3 Cable Type A

HF =	Su perflexible
ST =	St andard

4 Connector A
[for Cable to Panel Boots]

4SF =	4.3-10 Screw Female	4PM =	4.3-10 Push/Pull Male
4SFR =	4.3-10 Screw Female Right Angle	4PMR =	4.3-10 Push/Pull Male Right Angle
4HF =	4.3-10 Hand Screw Female	DF =	7/16-DIN Female
4HFR =	4.3-10 Hand Screw Female Right Angle	DFR =	7/16-DIN Female Right Angle
4HM =	4.3-10 Hand Screw Male	DM =	7/16-DIN Male
4HMR =	4.3-10 Hand Screw Male Right Angle	DMR =	7/16-DIN Male Right Angle
4SM =	4.3-10 Screw Male	NF =	N Female
4SMR =	4.3-10 Screw Male Right Angle	NFR =	N Female Right Angle
4PF =	4.3-10 Push/Pull Female	NM =	N Male
4PFR =	4.3-10 Push/Pull Female Right Angle	NMR =	N Male Right Angle

5 Cable Size B
[for Cable to Cable Boots]

11 =	1 - 1/4”
12 =	1/2”
14 =	1/4”
15 =	1 - 5/8”
21 =	2 - 1/4”
38 =	3/8”
58 =	5/8”
78 =	7/8”

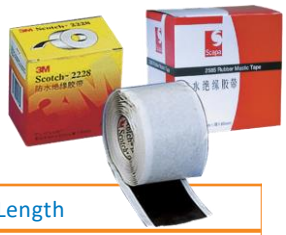
6 Series Number
[for Cable to Cable Boots]

Series code number has no direct correlation to individual specifications

Weather-proofing Boot Product Reference

Model	Type	Cable Type A	Connector Type A	Cable B Size (if applicable)	Connector B Type (if applicable)
WRB-12HFDM-F	Cable to Panel	1/2” Superflexible	7/16-DIN Male	---	---
WRB-12STDM-F	Cable to Panel	1/2” Standard	7/16-DIN Male	---	---
WRB-12STNM-F	Cable to Panel	1/2” Standard	N Male	---	---
B-12-78-0001-F	Cable to Cable	1/2” Superflexible	7/16-DIN Male	7/8” Standard	7/16-DIN Male

Nomenclature Guide for Weather-proofing Tape



AWPT-M51W06M

1 2 3 4

1 Product Type		2 Tape Type		3 Tape Width		4 Tape Length	
AWPT =	Weatherproofing Tape	M =	Mastic	19 W =	19 mm	06M =	0.6 meters
		A =	Adhesive	51W =	51 mm	006 =	6 meters
				60 W =	60 mm	020 =	20 meters
				63W =	63 mm		

Weather-proofing Tape Product Reference

Model	Tape Type	Thickness	Width	Length
AWPT-A51W006-F	Adhesive	0.19 ± 0.01 mm	50.8 ± 0.5mm	6000 ± 50 mm
AWPT-M63W06M-F	Mastic	2.5 ± 0.25 mm	63 ± 2.5 mm	600 ± 50 mm
AWPTK-001	Adhesive & Mastic Kit	(1x) 0.19 ± 0.01 mm (2x) 0.19 ± 0.01 mm (6x) 2.5 ± 0.25 mm	(1x) 50.8 ± 0.5 mm (2x) 19 ± 0.5 mm (6x) 63 ± 2.5 mm	(1x) 6.0± 0.05 mm (2x) 20 ± 0.05 mm (6x) 600 ± 50 mm

Nomenclature Guide for Grounding Kits

AAGK-12-15ST

1 2 3 4

1 Product Type		2 Cable Size		3 Second Cable Size		4 Cable Type	
AAGK =	Grounding Kit	11 =	1-1/4”	Leave Blank for Non Adjustable Kits		CC =	Corrugated
		12 =	1/2”	-11 =	1-1/4”	HC =	Helical
		14 =	1/4”	-12 =	1/2”	HF =	Superflexible Coaxial
		15 =	1-5/8”	-14 =	1/4”	ST =	Standard Coaxial
		21 =	2-1/4”	-15 =	1-5/8”	PL =	Plenum
		38 =	3/8”	-21 =	2-1/4”		
		58 =	5/8”	-38 =	3/8”		
		78 =	7/8”	-58 =	5/8”		
		K4 =	KSR400	-78 =	7/8”		
				K4 =	KSR400		

Grounding Kit Product Reference

Model	Description	Cable Size	Cable Length
AAGK-12-15ST-F	1/2” to 1-5/8” Grounding Kit	1/2” to 1-5/8”	1.524 m
AAGK-78ST-F	7/8” Standard Coaxial Cable Grounding Kit	7/8”	0.6 m

Nomenclature Guide for Feeder Clamps

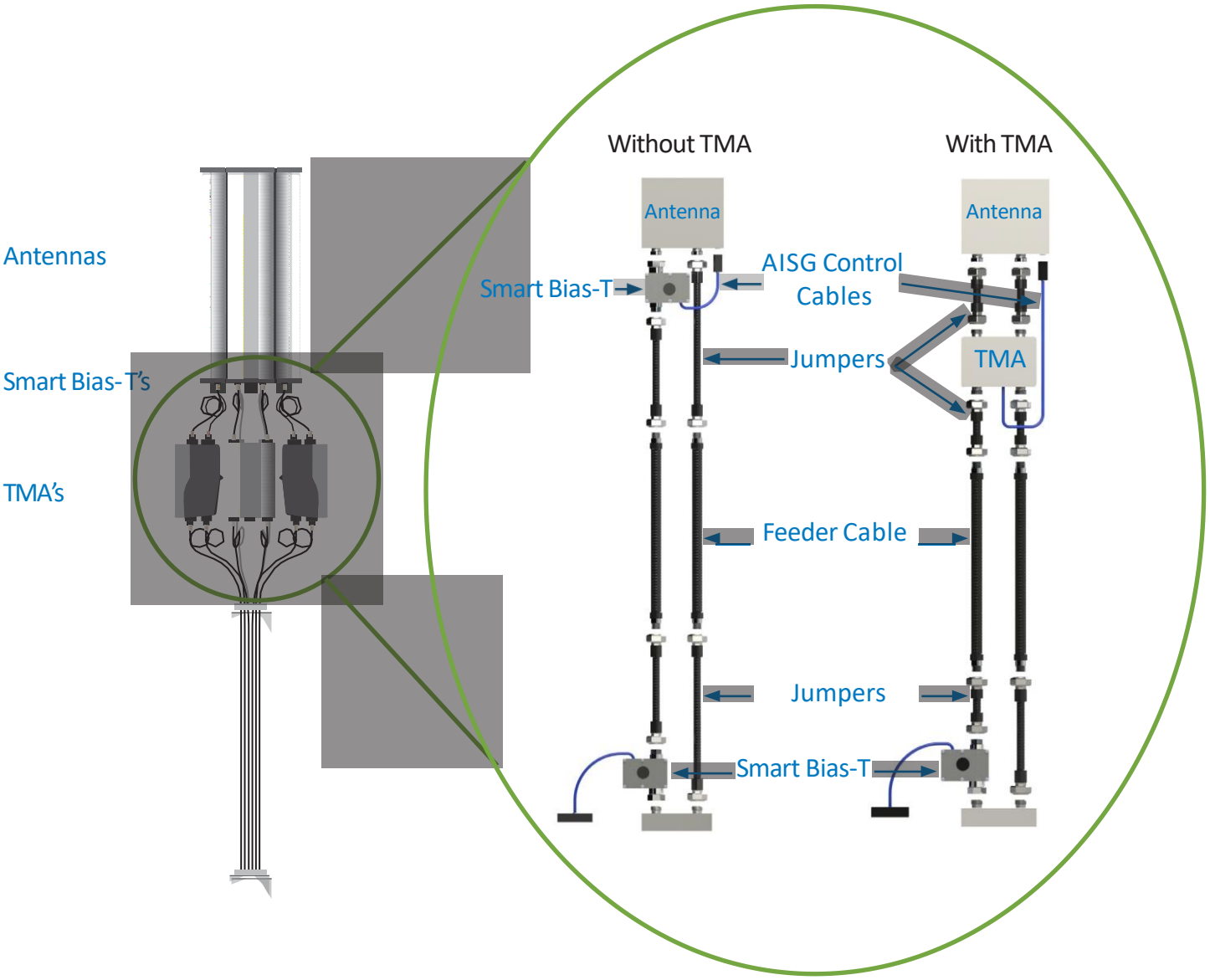
AFC - 525 - SH - 6 - C

1 2 3 4 5

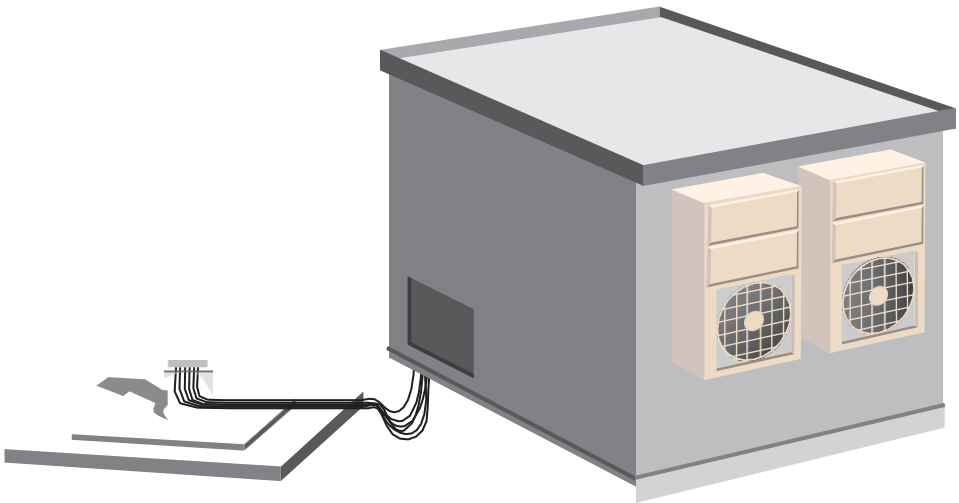
1 Product Type	2 For Cable Size	3 Hanger Type	4 Total Number of Cables	5 Special Features (if needed)
AFC = Feeder Clamp [Hangers]	11 = 1-1/4”	SH = Single Hanger	1 = 1 Cable	L = Leakage Cable
	12 = 1/2”	DH = Double Hanger	2 = 2 Cables	C = Combined Clamp
	14 = 1/4”		3 = 3 Cables	
	15 = 1-5/8”		4 = 4 Cables	
	21 = 2-1/4”		5 = 5 Cables	
	38 = 3/8”		6 = 6 Cables	
	525 = Ø5 mm/Ø25 mm		7 = 7 Cables	
	58 = 5/8”		8 = 8 Cables	
	78 = 7/8”			
	K4 = KSR400			

Feeder Clamp Product Reference

Model	Cable Size	Cable Type	Hanger Type	Stack Type	Total Number of Cables
AFC-11-SH-1-L	1-1/4”	Leakage Cable	Single	Single	1
AFC-11-SH-2	1-1/4”	Feeder Cable	Single	Double	2
AFC-12-SH-1	1/2”	Feeder Cable	Single	Single	1
AFC-525-SH-9-C	Ø25 mm/Ø5 mm	Combined - Power & Fiber	Single	Triple	3 (Ø25 mm) 6 (Ø5 mm)
AFC-78-DH-6	7/8”	Feeder Cable	Double	Triple	6
AFC-78-SH-2	7/8”	Feeder Cable	Single	Double	2



Combiners



Base Station Shelter

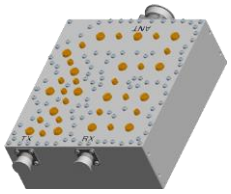
Tower Mounted Amplifiers (TMAs)

Operators know that a cost-effective solution to maximizing site coverage and boosting call quality is through the use of **Tower Mounted Amplifiers** (TMAs). Amphenol offers a global portfolio of single-band, multi-band and integrated filter designs to provide uplink amplification and support. Compatible power distribution units and Bias-Ts complete the solution.

Combiners

Amphenol's **Combiners** allow operators to combine multiple frequencies onto a single run of coax reducing overall costs, wind loads and weight in a streamlined arrangement. Diplexers, triplexers and quadruplexers are available for 2G, 3G and LTE systems and are designed for low insertion loss to ensure minimal impact on the overall system.

Duplexers



Duplexers allow the use of a single antenna by both transmitter and receiver, coupling the transmitter and receiver to the antenna while producing isolation between the two.

Smart Bias-T's

Amphenol's **Smart Bias-T** products, are used in place of traditional AISG "Home Run" cables. The Smart Bias-T eliminates the need for the home run cable by integrating DC power and AISG control signals onto the coaxial feeder line. If a TMA is not used, two Bias-T's are typically required—one at the bottom of the tower and one at the top.

AISG Control Cables

Amphenol Antenna Solutions **control cables** are compliant to AISG standards and are offered in many different lengths.

Tower Mounted Amplifier Product Reference

Single Band TMA's

Family Model Name	Description	Frequency Range		Ports		Gain (dB)
		Uplink	Downlink	BTS	Antenna	
TTA-CBG100H	700 MHz, Twin TMA, AISG v2.0, Fixed Gain	703-738 MHz	758-793 MHz	2	2	12
TTA-CBG110H	700 MHz, Twin TMA, AISG v2.0, Fixed Gain	718-748 MHz	773-803 MHz	2	2	12
TTA-LCG100H	800 MHz, Twin TMA, AISG v2.0, Fixed Gain	832-862 MHz	791-821 MHz	2	2	12
TTA-CLG100H	850 MHz, Compact Twin TMA, AISG v2.0, Fixed Gain	824-849 MHz	869-894 MHz	2	2	12
TTA-GLG120H	900 E-GSM, Twin TMA, AISG v2.0, Fixed Gain	880-915 MHz	925-960 MHz	2	2	12
TTA-GLN100L-S	900 MHz, Compact Single TMA, Fixed Gain	890-915 MHz	935-960 MHz	1	1	12
TTA-GHG100H	1800 MHz, Twin TMA, AISG v2.0, Fixed Gain	1710-1785 MHz	1805-1880 MHz	2	2	12
TTA-UMG101H	UMTS, Twin TMA, AISG v2.0, Fixed Gain	1920-1980 MHz	2110-2170 MHz	2	2	12
TTA-LBG100H	LTE 2600, Twin TMA, AISG v2.0, Fixed Gain	2500-2570 MHz	2620-2690 MHz	2	2	12
TTA-ASG100H	AWS, Twin TMA, AISG v2.0, Fixed Gain	1710-1770 MHz	2110-2170 MHz	2	2	12
TTA-PSG100H	1900 MHz, Twin TMA, AISG v2.0, Fixed Gain	1850-1910 MHz	1930-1990 MHz	2	2	12
TTA-CBG100K	700 MHz, Twin TMA, AISG v2.0, Fixed & Adjustable Gain	703-748 MHz	758-803 MHz	2	2	12 (8-16)
TTA-LCG100K	800 MHz, Twin TMA, AISG v2.0, Fixed & Adjustable Gain	832-862 MHz	791-821 MHz	2	2	12
TTA-CLG100K	850 MHz, Twin TMA, AISG v2.0, Fixed & Adjustable Gain	824-849 MHz	869-894 MHz	2	2	12 (8-16)
TTA-GLG100K	900 MHz, Twin TMA, AISG v2.0, Fixed & Adjustable Gain	890-915 MHz	935-960 MHz	2	2	12 (8-16)
TTA-GLG110K	900 MHz, Twin TMA, AISG v2.0, Fixed & Adjustable Gain	880-915 MHz	925-960 MHz	2	2	12 (8-16)
TTA-ASW100H	AWS w/700 Bypass, Twin TMA, AISG v1.1 or v2.0, Fixed Gain	1710-1770 MHz	2110-2170 MHz	2	2	12
TTA-PSW100H	1900 MHz w/700 & 850 Bypass, Twin TMA, AISG v1.1 or v2.0, Fixed Gain	1850-1910 MHz	1930-1990 MHz	2	2	12

RF Conditioning Products

Dual Band TMA's

Family Model Name	Description	Frequency Range		Ports		Gain (dB)
		Uplink	Downlink	BTS	Antenna	
TTA-DA100x	700/800, Twin TMA, AISG v2.0, Fixed Gain	703-733/832-862 MHz	758-788/791-821 MHz	2	2	12
TTA-DB101x	700/900, Twin TMA, AISG v2.0, Fixed Gain	703-733/880-915 MHz	743-788/925-960 MHz	2	2	12
TTA-DB102x	700/900, Twin TMA, AISG v2.0, Fixed Gain	713-743/880-915 MHz	753-798/925-960 MHz	2	2	12
TTA-DB103x	700/900, Twin TMA, AISG v2.0, Fixed Gain	723-753/880-915 MHz	763-803/925-960 MHz	2	2	12
TTA-DD100x	800/900 MHz, Twin TMA, AISG v1.1 or v2.0, Fixed Gain	832-862/880-915 MHz	791-821/925-960 MHz	2	4	12
TTA-DD101x	800/900 MHz, Twin TMA, AISG v2.0, Fixed Gain	832-862/880-915 MHz	791-821/925-960 MHz	2	2	12
TTA-DN110x	GSM1800/UMTS2100, Twin TMA, AISG v2.0, Fixed Gain	1710-1785/1920-1980 MHz	1805-1880/2110-2170 MHz	2	4	12
TTA-DN1xxN	GSM1800/UMTS2100, Twin TMA, AISG v2.0, Fixed Gain	1710-1785/1920-1980 MHz	1805-1880/2110-2170 MHz	4	2	12
TTA-DN1xxx	GSM1800/UMTS2100, Twin TMA, AISG v1.1 or v2.0, Fixed Gain	1710-1785/1920-1980 MHz	1805-1880/2110-2170 MHz	2	2	12
TTA-DU100x	1800/2600 MHz, Twin TMA, AISG v1.1 or v2.0, Fixed Gain	1710-1785/2500-2570 MHz	1805-1880/2620-2690 MHz	2	2	12
TTA-DU1xxx	1800/2600 MHz, Twin TMA, AISG v2.0, Fixed Gain	1710-1785/2500-2570 MHz	1805-1880/2620-2690 MHz	2	4	12
TTA-DV100x	2100/2600 MHz, Twin TMA, AISG v2.0 , Fixed Gain	1920-1980/2500-2570 MHz	2110-2170/2620-2690 MHz	2	2	12
TTA-DV10xx	2100/2600 MHz |Twin TMA |AISG v2.0 |Fixed Gain	1920-1980/2500-2570 MHz	2110-2170/2620-2690 MHz	2	2	12
TTA-DV101x	2100/2600 MHz, Twin TMA, AISG v1.1 or v2.0, Fixed Gain	1920-1980/2500-2570 MHz	2110-2170/2620-2690 MHz	2	4	12

Triple Band TMA's

Family Model Name	Description	Frequency Range		Ports		Gain (dB)
		Uplink	Downlink	BTS	Antenna	
TTA-TU100x	1800/2100/2600 MHz, Twin TMA, AISG v2.0 , Fixed Gain	1710-1785/1920-1980/ 2500-2570 MHz	1805-1880/2110-2170/ 2620-2690 MHz	2	2	12
TTA-TU110x	1800/2100/2600 MHz, Twin TMA, AISG v2.0 , Fixed Gain	1710-1785/1920-1980/ 2500-2570 MHz	1805-1880/2110-2170/ 2620-2690 MHz	2	4	12
TTA-TB100x	700/800/900 MHz, Twin TMA, AISG v2.0, Fixed Gain, Single Mode or Independent AISG	703-733/832-862/ 880-915 MHz	758-788/791-821/ 925-960 MHz	2	2	12
TTA-TL100N	1800 & 2100/2600 MHz, Twin TMA, AISG v2.0, Fixed Gain, Independent AISG	1710-1785/1920-1980/ 2500-2570 MHz	1805-1880/2110-2170/ 2620-2690 MHz	2	4	12

Multiplexer Product Reference

Diplexers

Family Model Name	Description	Frequency Range
DPX-07x	Diplexer, PCS/AWS, Single and Twin Units, Indoor/Outdoor	1695-1780 & 2110-2200 /1850-1910 & 1930-1995 MHz
DPX-08x	Diplexer, 700/800, Single and Twin Units, Indoor/Outdoor	703-778/791-862 MHz
DPX-09x	Diplexer, 700/800, Single and Twin Units, Indoor/Outdoor	713-778/801-862 MHz
DPX-11x	Diplexer, 1800/2100, Single and Twin Units, Indoor/Outdoor	1710-1880/1920-2170 MHz
DPX-12x	Diplexer, 1800+2100/2600, Single and Twin Units, Indoor/Outdoor	1695-2170/2496-2690 MHz
DPX-13x	Diplexer, 800/900, Single and Twin Units, Indoor/Outdoor	791-862/880-960 MHz
DPX-13x-JJ	Diplexer, 700+800/900, Single and Twin Units, Indoor/Outdoor	690-862/ 880-960 MHz
DPX-17x	Diplexer, AWS/2300, Single and Dual Units, Indoor/Outdoor	1710-2170/2300-2400 MHz
DPX-19x	Diplexer, 555-960 MHz/1695-2690 MHz, Single and Twin Units, Indoor/Outdoor	555-960/1695-2690 MHz
DPX-19x-JJ	Diplexer, 470-960 MHz/1695-2700 MHz, Single and Twin Units, Indoor/Outdoor	470-960/1695-2700 MHz
DPX-23x	Diplexer, AWS/2300-2700 MHz, Single and Twin Units, Indoor/Outdoor	1695-2180/2300-2700 MHz
DPX-24x	Diplexer, 700/850+900, Single and Twin Units, Indoor/Outdoor	698-806/824-960 MHz
DPX-25x	Diplexer, 1800/2100+2300, Single and Twin Units, Indoor/Outdoor	1710-1880/1920-2170&2300-2400 MHz
DPX-26x	Diplexer, AWS/PCS, Single and Twin Units, Indoor/Outdoor	1695-1780&2110-2200/1850-1990 MHz
DPX-27x	Diplexer, 600/700, Single Unit, Indoor/Outdoor	617-697.75/699.25-746 MHz
DPX-27x-JJ	Diplexer, 555-806 MHz/824-960 MHz, Single and Twin Units, Indoor/Outdoor	555-806/824-960 MHz
DPX-28x	Diplexer, 690-2180/2400-2700 MHz, Single and Twin Units, Indoor/Outdoor	690-2180/2400-2700 MHz
DPX-29x	Diplexer, 380-2180/2400-2700 MHz, Single and Twin Units, Indoor/Outdoor	380-2180/2400-2700 MHz
DPX-50x	Diplexer, 1695-2200/2300-2700 MHz, Single and Twin Units, Indoor/Outdoor	1695-2200/2300-2700 MHz

RF Conditioning Products

Triplexers

Family Model Name	Description	Frequency Range
TPX-10x	Triplexer, 800+900/1800/2100, Single and Twin Units, Indoor/Outdoor	790-960/1710-1880/1920-2170 MHz
TPX-10x-JJ	Triplexer, 380-960/1800/2100, Single and Twin Units, Indoor/Outdoor	380-960/1710-1880/1920-2200 MHz
TPX-11x	Triplexer, 700+800+900/1800+2100/2300+2600, Single and Twin Units, Indoor/Outdoor	690-960/1695-2200/2300-2700 MHz
TPX-12x	Triplexer, 1800/2100/2600, Single and Twin Units, Indoor/Outdoor	1710-1880/1920-2200/2300-2700 MHz
TPX-16x	Triplexer, 1800/2100/2600, Single and Twin Units, Indoor/Outdoor	1710-1880/1920-2170/2300-2690 MHz
TPX-17x	Triplexer, 800/900/AWS, Single and Twin Units, Indoor/Outdoor	790-862/880-960/1710-2170 MHz
TPX-18x	Triplexer, 690-862/880-960/1695-2700 MHz, Single and Twin Units, Indoor/Outdoor	690-862/880-960/1695-2700 MHz
TPX-19x	Triplexer, 700+800+900/1800/2100+2300+2600, Single and Twin Units, Indoor/Outdoor	690-960/1710-1880/1920-2700 MHz
TPX-20x	Triplexer, 600-900/1700-2200/2300-2600, Single and Twin Units, Indoor/Outdoor	555-960/1695-2200/2300-2700 MHz

Quadruplexers

Family Model Name	Description	Frequency Range
QPX-11x	Quadruplexer, 1800/2100/2300/2600, Single and Twin Units, Indoor/Outdoor	1710-1880/1920-2170/2300-2390/2500-2690 MHz
QPX-12x	Quadruplexer, 700+800+900/1800/2100/2300+2600, Single and Twin Units, Indoor/Outdoor	698-960/1710-1880/1920-2170/2300-2690 MHz
QPX-13x	Quadruplexer, 800/900/1800+2100/2600, Single and Twin Units, Indoor/Outdoor	790-862/880-960/1710-2170/2500-2690 MHz
QPX-14x	Quadruplexer, 800/900/1800/2100, Single and Twin Units, Indoor/Outdoor	790-862/880-960/1710-1880/1920-2170 MHz
QPX-50x	Quadruplexer, 690-960/1710-1880/1920-2200/2300-2700 MHz, Single and Twin Units, Indoor/Outdoor	690-960/1710-1880/1920-2200/2300-2700 MHz
QPX-51x	Quadruplexer, 690-960/1710-1880/1920-2170/2270-2700 MHz, Single and Twin Units, Indoor/Outdoor	690-960/1710-1880/1920-2200/2270-2700 MHz
QPX-52x	Quadruplexer, 690-862/880-960/1710-1880/1920-2200 MHz, Single and Twin Units, Indoor/Outdoor	690-862/880-960/1710-1880/1920-2200 MHz

Filter Product Reference

Filters

Family Model Name	Description	Pass Band	Rejection Band	Rejection	Unit Type	Connector
FLT-151-JJ	850 MHz, Rejection Filter	695-803/898-960 MHz	870-890 MHz	> 45dB	Twin Unit	7/16-DIN Female
FLT-161-JJ	900 MHz, Band Pass Filter	898-960 MHz	880-890 MHz	> 45dB	Twin Unit	7/16-DIN Female
FLT-171-CC	WCDMA, Cavity Filter	1920-1980/2110-2170 MHz	1710-1880 MHz	≥ 80 dB	Single Unit	N Female
FLT-177-JJ	GSM/UMTS900 with CDMA/UMTS/LTE800/850 Suppression, Band Pass Filter	890-915/935-960 MHz	824-888.5 MHz	> 40dB	Twin Unit	7/16-DIN Female
FLT-178-JJ	LTE850 with GSM Suppression, Band Pass Filter	824-894 MHz	907.5-960 MHz	> 60dB	Twin Unit	7/16-DIN Female
FLT-186-JJ	GSM900 with LTE850 Suppression, Band Pass Filter	880-1-960 MHz	869-879 MHz	> 41dB	Twin Unit	7/16-DIN Female
FLT-187-JJ	3500 MHz, Band Pass Filter	3400-3600 MHz	3300-3390 MHz	> 36dB	Twin Unit	7/16-DIN Female
FLT-188-JJ	3500 MHz, Band Pass Filter	3432.5-3600 MHz	3300-3400 MHz	> 58dB	Twin Unit	4.3-10 Female
FLT-189-JJ	3500 MHz, Band Pass Filter	3432-5-3447.5/3532.5-3547.5 MHz	3300-3400 MHz	> 58dB	Twin Unit	7/16-DIN Female
FLT-190-JJ	GSM900 with LTE850 Suppression, Band Pass Filter	897.2-960 MHz	869-885	> 55dB	Twin Unit	7/16-DIN Female

Same Band Combiner Product Reference

Filters

Family Model Name	Description	Solution	Frequency Band		PIM (2x43 dBm)
			Channel 1	Channel 2	
AASBC-141	1800 MHz, Antenna Sharing Filter, DC/AISG Transparency, 7/16-DIN	Filter w/Guard Band	1725-1740/1820-1835 MHz	1745-1755/1840-1850 MHz	-160
AASBC-15x	2600 MHz, Same Band Combiner, DC/AISG Tranparency, Single or Twin Units, 7/16-DIN or 4.3-10	Filter w/Guard Band	2540-2550/2660-2670 MHz	2595-2615 MHz	-160
AASBC-16x	900 MHz, Same Band combiner, Twin unit, DC/AISG Transparency, 7/16-DIN	Filter w/Guard Band	885-890/930-935 MHz	905-915/950-960 MHz	-160
AASBC-202	1800 MHz, Same Band Combiner, Single Unit, 7/16-DIN	Filter w/Guard Band	1715-1730/1810-1825 MHz	1750-1765/ 1845-1860 MHz	-160
AASBC-701	2100 MHz, Same Band Combiner, Single Unit, 7/16-DIN	Filter w/Guard Band	1920-1924.43/ 2110-2114.43 MHz	1925.57-1935/ 2115.57-2125 MHz	-155
AASBC-53x-JJ	2500+2600 MHz, Same Band Combiner, Full DC/AISG Bypass, 7/16-DIN	Filter w/Guard Band	2500-2520/2620-2640 MHz	2530-2570/2650-2690 MHz	-155
AASBC-52x-06	900 MHz, Same Band Combiner, DC/AISG Bypass, Single or Twin Units, 7/16-DIN	Filter w/Guard Band	890.2-894.6/ 935.2-939.6 MHz	905-914.8/950-959.8 MHz	-160
AASBC-261x-06	2600 MHz Same Band Combiner, DC/AISG Bypass, Single or Twin Units, 7/16-DIN	Filter w/Guard Band	2595-2615 MHz	2540-2550/2660-2670 MHz	-160
AASBC-26x-JJ	AWS, Same Band Combiner, Full DC/AISG Bypass, Single or Twin Units, 7/16-DIN	Filter w/Guard Band	1710-1740/2110-2140 MHz	1755-1780/2155-2180 MHz	-160
AASBC-27x-JJ	1940-1955/2130-2145 MHz & 1965-1980/2155-2170 MHz, Same Band Combiner, DC/AISG Bypass, Single Unit, 7/16-DIN	Filter w/Guard Band	1940-1955/2130-2145 MHz	1965-1980/2155-2170 MHz	-168
AASBC-541	2600 MHz, Antenna Sharing Filter, AISG/DC Transparency, 7/16-DIN	Filter w/Guard Band	2500-2520/2620-2640 MHz	2530-2570 /2650-2690 MHz	-160
AASBC-131	1800 MHz, Antenna Sharing Filter, AISG/DC Transparency, 7/16-DIN	Filter w/Guard Band	1710-1740/1805-1835 MHz	1770-1785/1865-1880 MHz	-160
TTA-GLG0310K	890-915 (Rx) / 935 -960 (Tx) MHZ - Active Same band Combiner, AISGv2.0, 7/16-DIN or 4.3-10 Connectors	Active Design in Rx Band	890-915/935-960 MHz	890-915/935-960 MHz	-160

Duplexer Product Reference

Duplexers

Model	Frequency Range	Unit Quantity	Isolation	Connector Type	DC Bypass
DUP-GHG100-07	1710-1785/1805-1880 MHz	Single Unit	> 50dB	7/16-DIN Female	No DC-Bypass
DUP-GLG100-07	890-915/935-960 MHz	Single Unit	> 50dB	7/16-DIN Female	No DC-Bypass
DUP-UMG100-07	1920-1980/2110-2170 MHz	Single Unit	> 50dB	7/16-DIN Female	No DC-Bypass
DUP-UMG101-07	1920-1980/2110-2170 MHz	Single Unit	> 80dB	7/16-DIN Female	No DC-Bypass
DUP-UMG110-03	1920-1980/2110-2170 MHz	Single Unit	> 80dB	7/16-DIN Female	No DC-Bypass
DUP-GLG101-FF	890-915/935-960 MHz	Single Unit	> 70dB	7/16-DIN Female	No DC-Bypass

Smart Bias-T Product Reference

Smart Bias-T's

Family Model Name	Frenquency Range	Installation Position	Connector Input Type	Connector Output Type	RET Connector Type
SBT-5553800-MFF	555-3800 MHz	Antenna	4.3-10 Female	4.3-10 Male	8-Pin Circular Female
SBT-6962690-FFM	698-2690 MHz	Antenna	7/16-DIN Female	7/16-DIN Female	8-Pin Circular Male
SBT-6962690-MFM	698-2690 MHz	Antenna	7/16-DIN Female	7/16-DIN Male	8-Pin Circular Male
SBT-6962690-FMM	698-2690 MHz	Antenna	7/16-DIN Male	7/16-DIN Female	8-Pin Circular Male
SBT-6962690-FFF	698-2690 MHz	Antenna	7/16-DIN Female	7/16-DIN Female	8-Pin Circular Female
SBT-6962690-MFF	698-2690 MHz	Antenna	7/16-DIN Female	7/16-DIN Male	8-Pin Circular Female
SBT-6962690-FMF	698-2690 MHz	Antenna	7/16-DIN Male	7/16-DIN Female	8-Pin Circular Female

AISG Control Cable Product Reference

AISG Control Cables

Family Model Name	Connector Quantity	Connector A Type	Connector B Type	Connector C Type	Cable Length
CC-05-xxx-MRF	2	8 pin Male Connector, Straight	8 pin Female Connector, Right Angle	---	0.5-100 m
CC-05-xxx-MFV	2	8 pin Male Connector, Straight	8 pin Female Connector, Straight	---	0.3-100 m
CC-05-C30-FMF	3	8 pin Female Connector, Straight	8 pin Female Connector, Straight	8 pin Female Connector, Straight	(3x) 0.3 m
CC-05-xxx-FM	2	8 pin Male Connector, Right Angle	8 pin Female Connector, Right Angle	---	0.5-100 m

Hybrid Couplers

Hybrid Couplers are uniquely designed to separate input power equally among several outputs.

Directional Couplers

Amphenol offers broadband **directional couplers** for indoor applications. Operating from 350..4000 MHz. Available with 4.3-10, N-Type and 7/16-DIN Connectors, plus options available from 3 dB up to 40 dB.

Tappers

Tappers are designed to tap off a portion of the antenna's signal while allowing the rest of the signal to pass through with minimum loss.

Power Splitters

Power splitters split the signal evenly and with minimal loss and reflections. Designed for use with multi-band antennas, radiating cables and DAS applications.

Attenuators

Attenuators for coaxial loads with very low VSWR especially suitable for power hybrids, isolators, coaxial transmission lines, power monitors, watt meters and receiver multicouplers.

Termination Loads

Low VSWR **terminators** (or **termination loads**) shut off an open RF port.

DC Blocks

DC Stops and **blocks** are designed to block the flow of DC frequencies to RF signals.

POIs

Point of Interface (**POI**) products Combine and distribute multiband RF signals in an indoor distributed antenna system (DAS)

Nomenclature Guide for Hybrid Couplers

HC - x M X 22 - 43 M

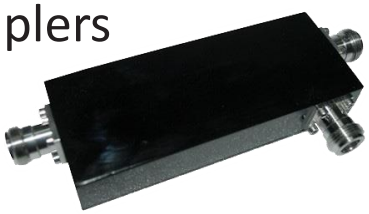
1 2 3 4 5 6

1 Product Type	2 Coupling Value	3 Frequency	4 PIM Level	5 Connectors In/Out	6 Connector Type
HC = Hybrid Coupler	2 = 2 dB	D = DC-3 GHz	H = High PIM [≥ -149 dBc]	21 = 2 In / 1 Out	43F = 4.3-10 Female
	3 = 3 dB	L = 350-2700 MHz	N = Normal PIM [≤ -150 dBc]	22 = 2 In / 2 Out	43M = 4.3-10 Male
	5 = 5 dB	M = 555-2700 or 698-2700 MHz	L = Low PIM [≤ -153 dBc]	42 = 4 In / 2 Out	DF = 7/16-DIN Female
	7 = 7 dB	E = 600-3600 MHz	G = Great PIM [≤ -155 dBc]	44 = 4 In / 4 Out	DM = 7/16-DIN Male
		H = 698-4000 MHz	X = Excellent PIM [≤ -160 dBc]		NF = N-Type Female
					NM = N-Type Male

Hybrid Coupler Product Reference

Model	Frequency Range	Ports		Coupling Value	Isolation	Connector Type	PIM (2x43 dBm)
		Input	Output				
HC-3HG22-43F	698-3600 MHz	2	2	3 dB	≥ 25 dB	4.3-10 Female	< -155 dBc
HC-3LX22-NF-JJ	340-2700 MHz	2	2	3 dB	≥ 23 dB	N Female	< -160 dBc
HC-3MX22-43F-JJ	555-2700 MHz	2	2	3 dB	≥ 26 dB	4.3-10 Female	< -160 dBc
HC-3LX22-43F	400-2700 MHz	2	2	3 dB	≥ 25 dB	4.3-10 Female	< -160 dBc
HC-3MN22-NF	698-2700 MHz	2	2	3 dB	≥ 23 dB	N Female	< -150 dBc
HC-3MX22-43F	698-2700 MHz	2	2	3 dB	≥ 25 dB	4.3-10 Female	< -160 dBc
HC-3MX22-DF	698-2700 MHz	2	2	3 dB	≥ 25 dB	7/16-DIN Female	< -160 dBc
HC-4HG21-43F	698-3600 MHz	2	1	3.5 dB	≥ 25 dB	4.3-10 Female	< -155 dBc
HC-4MG21-DF	698-2700 MHz	2	1	3.5 dB	≥ 25 dB	7/16-DIN Female	< -155 dBc
HC-4MN22-NF	698-2700 MHz	2	2	3.5 dB	≥ 25 dB	N Female	< -150 dBc
HC-4HN22-NF	698-2700 MHz	2	2	6 dB	≥ 25 dB	N Female	< -150 dBc
HC-4MX21-43F	698-2700 MHz	2	1	3.5 dB	≥ 25 dB	4.3-10 Female	< -160 dBc
HC-4MX21-DF	698-2700 MHz	2	1	3.5 dB	≥ 25 dB	7/16-DIN Female	< -160 dBc
HC-6ML44-43F	698-2700 MHz	4	4	6.1 dB	≥ 23 dB	4.3-10 Female	< -153 dBc
HC-6ML44-DF	698-2700 MHz	4	4	6.1 dB	≥ 23 dB	7/16-DIN Female	< -153 dBc
HC-6ML44-NF	698-2700 MHz	4	4	6.1 dB	≥ 23 dB	N Female	< -153 dBc
HC-7LL44-NF	350-2700 MHz	4	4	7.5 dB	≥ 23 dB	N Female	< -153 dBc
HC-7MG44-DF	698-2700 MHz	4	4	6.8 dB	≥ 25 dB	7/16-DIN Female	< -155 dBc
HC-7ML44-NF	698-2700 MHz	4	4	6.8 dB	≥ 25 dB	N Female	< -153 dBc
HC-7MN44-43F	698-2700 MHz	4	4	6.8 dB	≥ 25 dB	4.3-10 Female	< -150 dBc
HC-7MN44-DF	698-2700 MHz	4	4	6.9 dB	≥ 23 dB	7/16-DIN Female	< -150 dBc
HC-7MX44-43F	698-2700 MHz	4	4	6.8 dB	≥ 25 dB	4.3-10 Female	< -160 dBc
HC-7MX44-DF	698-2700 MHz	4	4	6.9 dB	≥ 25 dB	7/16-DIN Female	< -160 dBc
HC-9MG64-DF	698-2700 MHz	4	6	6.2 & 9.3 dB	≥ 25 dB	7/16-DIN Female	< -155 dBc

Nomenclature Guide for Directional Couplers



DC - xx M X - 43M

1 2 3 4 5

1 Product Type	2 Coupling Value	3 Frequency	4 PIM Level	5 Connector Type
DC = Directional Coupler	03 = 3 dB	L = 350-2700	H = High PIM [≥ -149 dBc]	43F = 4.3-10 Female
	05 = 5 dB	M = 555-2700 or 698-2700 MHz	N = Normal PIM [≤ -150 dBc]	43M = 4.3-10 Male
	06 = 6 dB		L = Low PIM [≤ -153 dBc]	DF = 7/16-DIN Female
	07 = 7 dB	H = 698-4000 MHz	G = Great PIM [≤ -155 dBc]	DM = 7/16-DIN Male
	08 = 8 dB		X = Excellent PIM [≤ -160 dBc]	NF = N Female
	10 = 10 dB			NM = N Male
	13 = 13 dB			
	15 = 15 dB			
	20 = 20 dB			
	30 = 30 dB			

Directional Coupler Product Reference

Model	Frequency Range	Connector Type	PIM (2x43 dBm)
DC-xxLL-NF-CC	350-2700 MHz	N Female	< -153 dBc
DC-xxLN-NF-CC	380-2700 MHz	N Female	< -150 dBc
DC-xxMX-43F-JJ	550-2700 MHz	4.3-10 Female	< -160 dBc
DC-xxMX-DF-JJ		7/16-DIN Female	< -160 dBc
DC-xxMX-NF-JJ		N Female	< -160 dBc
DC-xxMN-NF-CC	698-2700 MHz	N Female	< - 150 dBc
DC-xxML-43F-CC		4.3-10 Female	< -153 dBc
DC-xxML-DF-CC		7/16-DIN Female	< -153 dBc
DC-xxML-NF-CC		N Female	< -153 dBc
DC-xxMG-43F-CC		4.3-10 Female	< - 155 dBc
DC-xxMG-DF-CC		7/16-DIN Female	< - 155 dBc
DC-xxMX-43F-CC		4.3-10 Female	< -160 dBc
DC-xxMX-DF-CC		7/16-DIN Female	< -160 dBc
DC-xxHG-43F-CC	698-4000 MHz	4.3-10 Female	< -155 dBc
DC-xxHX-DF-CC		7/16-DIN Female	< -160 dBc
DC-xxHX-NF-CC		N Female	< -160 dBc

Nomenclature Guide for Tappers

TP - xxx - WBM - XP - 43F

1 2 3 4 5

1 Product Type	2 Output Split Ratio	3 Frequency	4 PIM Level	5 Connector Type
TP = Tapper	03 = 3 dB	L = 350-2700 MHz	H = High PIM [≥ -149 dBc]	43F = 4.3-10 Female
	05 = 5 dB	M = 555-2700 or 698-2700 MHz	N = Normal PIM [≤ -150 dBc]	43M = 4.3-10 Male
	06 = 6 dB	WBH = 698-4000 MHz	L = Low PIM [≤ -153 dBc]	DF = 7/16-DIN Female
	07 = 7 dB		G = Great PIM [≤ -155 dBc]	DM = 7/16-DIN Male
	08 = 8 dB		X = Excellent PIM [≤ -160 dBc]	NF = N-Type Female
	10 = 10 dB			NM = N-Type Male
	13 = 13 dB			
	15 = 15 dB			
	20 = 20 dB			
	30 = 30 dB			

Tapper Product Reference

Model	Frequency Range	Connector Type	PIM (2x43 dBm)
TP-xxLX-43F-CC	400-2700 MHz	4.3-10 Female	≤ -160 dBc
TP-xxLX-DF-CC	400-2700 MHz	7/16-DIN Female	≤ -160 dBc
TP-xxLX-43F-JJ	350-2700 MHz	4.3-10 Female	≤ -160 dBc
TP-xxLX-DF-JJ	350-2700 MHz	7/16-DIN Female	≤ -160 dBc
TP-xxLX-NF-JJ	350-2700 MHz	N Female	≤ -160 dBc
TP-xxML-43F-CC	698-2700 MHz	4.3-10 Female	≤ -153 dBc
TP-xxML-DF-CC	698-2700 MHz	7/16-DIN Female	≤ -153 dBc
TP-xxML-NF-CC	698-2700 MHz	N Female	≤ -153 dBc
TP-xxMX-43F-CC	698-2700 MHz	4.3-10 Female	< -160 dBc

Nomenclature Guide for Splitters

SP - xx MX - 43F

1 2 3 4 5

1 Product Type	2 Split Value	3 Frequency	4 PIM Level	5 Connector Type
SP = Power Splitter	02 = 2 Way Split	L = 350-2700	H = High PIM [≥ -149 dBc]	43F = 4.3-10 Female
	03 = 3 Way Split	M = 555-2700 or 698-2700 MHz	N = Normal PIM [≤ -150 dBc]	43M = 4.3-10 Male
	04 = 4 Way Split	H = 698-4000 MHz	L = Low PIM [≤ -153 dBc]	DF = 7/16-DIN Female
			G = Great PIM [≤ -155 dBc]	DM = 7/16-DIN Male
			X = Excellent PIM [≤ -160 dBc]	NF = N Female
				NM = N Male

Splitter Product Reference

Model	Frequency Range	Connector Type	Body Type	PIM (2x43 dBm)
SP-xxLL-NF	350-2700 MHz	N Female	Square Body	≤ -153 dBc
SP-xxLN-NF	380-2700 MHz	N Female	Square Body	≤ -150 dBc
SP-xxLX-43F	400-2700 MHz	4.3-10 Female	Square Body	≤ -160 dBc
SP-xxLX-DF		7/16-DIN Female	Square Body	≤ -160 dBc
SP-xxLX-NF		N Female	Square Body	≤ -160 dBc
SP-xxML-43F	555-2700 MHz	4.3-10 Female	Square Body	≤ -153 dBc
SP-xxML-NF		N Female	Square Body	≤ -153 dBc
SP-xxMN-DF	698-2700 MHz	7/16-DIN Female	Square Body	≤ -150 dBc
SP-xxMN-NF		N Female	Square Body	≤ -150 dBc
SP-xxML-DF		7/16-DIN Female	Square Body	≤ -153 dBc
SP-xxML-NF		N Female	Square Body	≤ -153 dBc
SP-xxMX-43F		4.3-10 Female	Square Body	≤ -160 dBc
SP-xxMX-DF		7/16-DIN Female	Square Body	≤ -160 dBc
SP-xxHL-43F	698-3800 MHz	4.3-10 Female	Square Body	≤ -153 dBc
SP-xxHL-NF		N Female	Square Body	≤ -153 dBc
SP-xxHG-43F		4.3-10 Female	Square Body	≤ -155 dBc
SP-xxHG-DF		7/16-DIN Female	Square Body	≤ -155 dBc
SP-xxHX-DF	698-4000 MHz	7/16-DIN Female	Square Body	≤ -160 dBc

Nomenclature Guide for Attenuators

A - 030 - 10 - DH - 43F 43M

1 2 3 4 5 6 7

1 Product Type	2 Power	3 Attenuation Value	4 Frequency	5 PIM Level	6 Connector 1	7 Connector 2
A = Attenuator	002 = 2 W	03 = 3 dB	D = DC-3 GHz	H = High PIM [≥ -149 dBc]	4F = 4.3-10 Female	4F = 4.3-10 Female
	010 = 10 W	06 = 6 dB	M = 555-2700 or 698-2700 MHz	N = Normal PIM [≤ -150 dBc]	4M = 4.3-10 Male	4M = 4.3-10 Male
	020 = 20 W	10 = 10 dB		L = Low PIM [≤ -153 dBc]	DF = 7/16-DIN Female	DF = 7/16-DIN Female
	025 = 25 W	20 = 20 dB		G = Great PIM [≤ -155 dBc]	DM = 7/16-DIN Male	DM = 7/16-DIN Male
	030 = 30 W	30 = 30 dB		X = Excellent PIM [≤ -160 dBc]	NF = N-Type Female	NF = N-Type Female
	050 = 50 W	40 = 40 dB			NM = N-Type Male	NM = N-Type Male
	100 = 100 W					

Attenuator Product Reference

Model	Frequency Range	Attenuation Values (xx)	Average Input Power	Connector Type (yyzz)	PIM (2x43 dBm)
A-002xxDHyyzz	DC-3 GHz	03, 06, 10, 15, 20, 30 dB	2 W	N Male to N Female (NMNF), 4.3-10 Male to 4.3-10 Female (4M4F), 7/16-DIN Male to 7/16-DIN Female (DMDF)	-110 dBc
A-005xxDHyyzz	DC-3 GHz	03, 06, 10, 15, 20, 30 dB	5 W	N Male to N Female (NMNF), 4.3-10 Male to 4.3-10 Female (4M4F), 7/16-DIN Male to 7/16-DIN Female (DMDF)	-110 dBc
A-005xxMNyyzz	698-2700 MHz	03, 06, 10, 20, 30 dB	5 W	N Male to N Female (NMNF), 4.3-10 Male to 4.3-10 Female (4M4F)	-150 dBc
A-010xxDHyyzz	DC-3 GHz	03, 06, 10, 15, 20, 30 dB	10 W	N Male to N Female (NMNF), 4.3-10 Male to 4.3-10 Female (4M4F), 7/16-DIN Male to 7/16-DIN Female (DMDF)	-110 dBc
A-010xxMXyyzz	698-2700 MHz	06, 10, 20, 30 dB	10 W	N Male to N Female (NMNF), 4.3-10 Male to 4.3-10 Female (4M4F), 7/16-DIN Male to 7/16-DIN Female (DMDF)	-160 dBc
A-020xxDHyyzz	DC-3 GHz	03, 06, 10, 15, 20, 30 dB	20 W	N Male to N Female (NMNF), 4.3-10 Male to 4.3-10 Female (4M4F), 7/16-DIN Male to 7/16-DIN Female (DMDF)	-110 dBc
A-025xxDHyyzz	DC- 3GHz	03, 06, 10, 15, 20, 30 dB	25 W	N Male to N Female (NMNF), 4.3-10 Male to 4.3-10 Female (4M4F), 7/16-DIN Male to 7/16-DIN Female (DMDF)	-110 dBc
A-030xxMXyyzz	698-2700 MH	03, 06, 10, 20, 30 dB	30 W	N Female to N Female (NFNF), 4.3-10 Female to 4.3-10 Female (4F4F)	-160 dBc
A-050xxDHyyzz	DC-3 GHz	03, 06, 10, 15, 20, 30 dB	50 W	N Male to N Female (NMNF), 4.3-10 Male to 4.3-10 Female (4M4F), 7/16-DIN Male to 7/16-DIN Female (DMDF)	-110 dBc
A-050xxDXyyzz	DC-3 GHz	03, 05, 06, 10, 15, 20, 30, 40, 50 dB	50 W	N Male to N Female (NMNF), 7/16-DIN Male to 7/16-DIN Female (DMDF)	-160 dBc
A-050xxMNyyzz	698-2700 MHz	03, 06, 10, 20, 30 dB	50 W	N Male to N Female (NMNF), 7/16-DIN Male to 7/16-DIN Female (DMDF)	-150 dBc
A-050xxMXyyzz	698-2700 MHz	03, 06, 10, 20, 30 dB	50 W	N Female to N Female (NFNF), 4.3-10 Female to 4.3-10 Female (4F4F), 4.3-10 Male to 4.3-10 Female (4M4F)	-160 dBc
A-100xxMXyyzz	698-2700 MHz	10, 20, 40 dB	100 W	4.3-10 Male to 4.3-10 Female (4M4F), 7/16-DIN Male to 7/16-DIN Female (DMDF)	-160 dBc
A-100xxDHyyzz	DC-3 GHz	03, 06, 10, 15, 20, 30 dB	100 W	N Male to N Female (NMNF), 4.3-10 Male to 4.3-10 Female (4M4F), 7/16-DIN Male to 7/16-DIN Female (DMDF)	-110 dBc
A-200xxDHyyzz	DC-3 GHz	03, 06, 10, 15, 20, 30 dB	200 W	N Male to N Female (NMNF), 4.3-10 Male to 4.3-10 Female (4M4F), 7/16-DIN Male to 7/16-DIN Female (DMDF)	-110 dBc

Nomenclature Guide for Termination Loads

AL - 050 - DH - 43F
1 2 3 4 5

1 Product Type		2 Power Handling		3 Frequency		4 PIM Level		5 Connector Type	
L =	Termination Load	001 =	1W	D =	DC-3 GHz	H =	High PIM [≥ -149 dBc]	43F =	4.3-10 Female
		002 =	2 W	M =	555-2700 or 698-2700 MHz	N =	Normal PIM [≤ -150 dBc]	43M =	4.3-10 Male
		005 =	5 W			L =	Low PIM [≤ -153 dBc]	DF =	7/16-DIN Female
		010 =	10 W	U =	DC-5 GHz	G =	Great PIM [≤ -155 dBc]	DM =	7/16-DIN Male
		020 =	20 W			X =	Excellent PIM [≤ -160 dBc]	NF =	N Female
		025 =	25 W					NM =	N Male
		030 =	30 W						
		050 =	50 W						
		100 =	100 W						
		200 =	200 W						
		250 =	250 W						

Termination Load Product Reference

Model	Frequency Range	Average Input Power	PIM (2x43 dBm)
L-001DHxx	DC-3 GHz	1 W	---
L-002MXxx	698-2700 MHz	2 W	-160 dBc
L-005DHxx	DC-3 GHz	5 W	---
L-005MXxx	650-2700 MHz	5 W	-160 dBc
L-010MXxx	698-2700 MHz	10 W	-160 dBc
L-020MXxx	650-3000 MHz	20 W	-160 dBc
L-025DHxx	DC-3000 MHz	25 W	---
L-025MXxx	698-2700 MHz	25 W	-160 dBc
L-025UHxx	DC-5 GHz	25 W	---
L-030MXxx	650-3000 MHz	30 W	-160 dBc
L-050DHxx	DC-3 GHz	50 W	---
L-050DXxx	30-3000 MHz	50 W	-160 dBc
L-050MXxx-JJ	555-2700 MHz	50 W	-160 dBc
L-050MXxx-CC	698-2700 MHz	50 W	-160 dBc
L-100DHxx	DC-3 GHz	100 W	---
L-100DXxx	30-3000 MHz	100 W	-160 dBc
L-100MXxx-JJ	555-2700 MHz	100 W	-160 dBc
L-100MXxx-CC	698-2700 MHz	100 W	-160 dBc
L-100UHxx	DC-5 GHz	100 W	--
L-200DHxx	DC-3 GHz	200 W	-110 dBc
L-200DXxx	DC-3 GHz	200 W	-160 dBc
L-300UHxx	DC-5 GHz	300 W	---

Nomenclature Guide for DC Blocks

ADS - ML - 43F 43M

1 2 3 4 5

1 Product Type	2 Frequency	3 PIM Level	4 Connector Type A	5 Connector Type B
ADS = DC Block (DC Stop)	H = 698-4000 MHz	H = High PIM [≥ -149 dBc]	43F = 4.3-10 Female	43F = 4.3-10 Female
	L = 350-2700 MHz	N = Normal PIM [≤ -150 dBc]	43M = 4.3-10 Male	43M = 4.3-10 Male
	M = 698-2700 MHz	L = Low PIM [≤ -153 dBc]	DF = 7/16-DIN Female	DF = 7/16-DIN Female
		G = Great PIM [≤ -155 dBc]	DM = 7/16-DIN Male	DM = 7/16-DIN Male
		X = Excellent PIM [≤ -160 dBc]	NF = N Female	NF = N Female
			NM = N Male	NM = N Male

DC Block Product Reference

Family Model Name	Frequency	Connector A Type	Connector B Type	PIM (2*43 dBm)	Design
ADS-MX-DMDF-M	698-2690 MHz	7/16-DIN Female	7/16-DIN Female	-160	Inner Conductor Block Only [Slim Design]
ADS-MX-43F43M-F	690-2700 MHz	4.3-10 Female	4.3-10 Male	-160	Inner Conductor Block Only
ADS-ML-DMDF-F	700-2500 MHz	7/16-DIN Female	7/16-DIN Male	-153	Inner Conductor Block Only

Additional DC Block products available. Please contact your sales representative or visit www.amphenol-antennas.com for complete product line information.

Nomenclature Guide for POI Systems

P - 20 - 04 - 43F xx

1 2 3 4 5

1 Product Type	2 Input Ports	3 Output Ports	4 Connector Type	5 Series Number
P = POI System	06 = 6 Ports	01 = 1 Port	43F = 4.3-10 Female	Series code munber has no direct correlation to individual specifications
	07 = 7 Ports	02 = 2 Ports	43M = 4.3-10 Male	
	20 = 20 Ports	04 = 4 Ports	DF = 7/16-DIN Female	
			DM = 7/16-DIN Male	
			NF = N Female	
			NM = N Male	

POI Product Reference

Model	Frequency Range	Ports		Average Input Power	Connectors		PIM (2x43 dBm)
		Input	Output		Input	Output	
P-20-02-DF01-MM	1710-1880/1920-2170/2300-2690 MHz	20	2	200 W	7/16-DIN Female	7/16-DIN Female	-150dBc
P-20-04-DF01-CC	832-915/1710-1880/1920-2170/ 2300-2390/2500-2690 MHz	20	4	150 W	7/16-DIN Female	7/16-DIN Female	-155 dBc
P-07-01-DF01-CC	890-960/1710-1880/1920-2170 MHz	7	1	200 W	7/16-DIN Female	7/16-DIN Female	-143 dBc
P-07-01-DF02-CC	890-960/897-950/1732-1875/1725-1845/1760-1880/1945-2145/1920-2135 MHz	7	1	200 W	7/16-DIN Female	7/16-DIN Female	-153 dBc
P-06-02-NF01-KK	1710-1880/1920-2170 MHz	6	2	100 W	N-Female	N-Female	-143 dBc
P-07-02-NF01-KK	1710-1880/1920-2170 MHz	7	2	100 W	N-Female	N-Female	-143 dBc

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