Laird™

Smart Technology. Delivered.

Telecom-Backhaul Antenna Solutions

Laird designs and manufactures customized, performance-critical products for wireless and other advanced electronics applications.





Smart Technology. Delivered.

About Laird

Laird is a global technology business focused on enabling wireless communication and smart systems, and providing components and systems that protect electronics. Laird operates through two divisions, Wireless Systems and Performance Materials. Wireless Systems solutions include antenna systems, embedded wireless modules, telematics products and wireless automation and control solutions. Performance Materials solutions include electromagnetic interference shielding, thermal management and signal integrity products. As a leader in the design, supply and support of innovative technology, our products allow people, organisations, machines and applications to connect effectively, helping to build a world where smart technology transforms the way of life. Custom products are supplied to major sectors of the electronics industry including the handset, telecommunications, IT, automotive, public safety, consumer, medical, rail, mining and industrial markets. Providing value and differentiation to our customers though innovation, reliable fulfilment and speed, Laird PLC is listed and headquartered in London, and employs over 9,000 people in more than 58 facilities located in 18 countries.

A Brief Introduction to Backhaul

Backhaul consists of carriers, or companies, who set up wireless Internet systems. These systems offer a central hotspot that allows subscribers within a limited coverage area to connect to the hotspot through a wireless connection. Backhaul comprises of a wireless network that covers protocols such as WLAN, WiMAX, Base Station and Point-to-Point. Backhaul antennas are typically used for fixed point wireless at a location.

Depend on Laird

Laird's Backhaul antennas meet stringent compliance standards and are competitively priced. Its worldwide engineering teams, using proprietary artificial intelligence antenna design software, create antenna designs with the tightest patterns and highest gain in the most compact package. With Laird's proven expertise in high-capacity manufacturing operations, its Backhaul product line exhibits a good value/performance ratio.

Benefits of Backhaul Technology

Some benefits of using Laird's Backhaul antennas include:

- Instant Internet connection anywhere around a hotspot
- Quick deployment
- Cost-effective solutions
- Variety of VPOL and HPOL configurations
- Wideband performance
- Well suited for point-to-point or point-to-multipoint applications

WiMAX Internal Antennas

Laird's internal wireless device antennas feature wide bandwidth to enhance the performance and application of portable wireless devices based on standards such as 802.11 and Bluetooth. The antennas are specifically designed to be embedded inside devices for aesthetically pleasing integration with high durability.

PART NUMBER	FREQUENCY (MHz)	ANTENNA TYPE	PATTERN TYPE	VSWR	GAIN (dBI)	POLAR-IZATION	DIMENSIONS (mm)		CONNECTOR TYPES	MOUNT STYLE	INDOOR/OUTDOOR
							LENGTH	WIDTH			
EMX2360A1-10UFL	2300-6000	Embedded	Omnidirectional	2	4 dBi (2.3-2.7 GHz), 2.1 dBi (3.3 GHz) and 4 dBi (4.9-5.875 GHz)	Vertical	2	0.65	IPEX MHF	Surface Mount	Indoor
EMX2360A1-15UFL	2300-6000	Embedded	Omnidirectional	2		Vertical	2	0.65	IPEX MHF	Surface Mount	Indoor
EMX2360A1-20UFL	2300-6000	Embedded	Omnidirectional	2		Vertical	2	0.65	IPEX MHF	Surface Mount	Indoor
EMX2360A1-25UFL	2300-6000	Embedded	Omnidirectional	2		Vertical	2	0.65	IPEX MHF	Surface Mount	Indoor

Telecom - Backhaul Antennas

General



• CP24-12



• ES24-14-echo

General antennas, otherwise known as Client Antennas, are used at a client site. They are typically directional antennas with gains from 5 dBi to 17 dBi. Due to typically poor site infrastructure at the client locations, these antennas need to be low wind loading. These antennas have either have VPOL or HPOL capability, contributing to balanced performance in each polarity.

PART NUMBER	FREQUENCY (MHz)	ANTENNA TYPE	PATTERN TYPE	VSWR	GAIN (dBi)	BEAM WIDTH (DEG)		POLAR-IZATION	DIMENSIONS (mm)			DIA	CONNECTOR TYPES	MOUNT STYLE	INDOOR/ OUTDOOR
						EL	AZ		LENGTH	WIDTH	HT				
CP24-12	2400-2485	Circular Polarized	Directional	1.5	12	37	37	Circular	8.5	–	–	8	Type N(f)	Mast	Outdoor
ES24-14	2400-2485	Echo (Backfire)	Directional	1.5	14	26	26	H/V	–	–	–	10.24	Type N(f)	Mast	Outdoor
ES58-17	5725-5850	Echo (Backfire)	Directional	1.5	17	25	25	H/V	–	2.5	–	10	Type N(f)	Mast	Outdoor
IN5RD Series	5150-5850	Indoor	Omni-directional	1.5	5	50	360	Vertical	–		–	–	Type RSMA, RTNC	Rubber Duck	Outdoor
IN7-3RD Series	698-806	Indoor	Omni-directional	1.5	3	50	360	Vertical	6.2	0.6	–	–	Type SMA, RSMA	Rubber Duck	Outdoor
RD2458-5-NM	2400/5000	Dipole	Omni-directional	2	2	90	360	Vertical	7.6	0.05	–	–	Type N(m), RSMA, RTNC, RTNC-W, SMA, TNC	Rubber Duck	Indoor
RD2458-5-OTDR-NM	2400/5000	Dipole	Omni-directional	2	2	90	360	Vertical	7.6	0.05	–	–	Type N(m), RTNC	Rubber Duck	Outdoor
IN800/2700-5	806/2700	Indoor	Omni-directional	1.5	3	–	360	Vertical	–	3.4	–	7.32	Type N(f)	Surface	Indoor
IN800/5900-5	800/5900	Indoor	Omni-directional	1.5	2.2	–	360	Vertical	–	4.25	–	7.25	Type N(f)	Surface	Indoor
LP800-2500-9-NF	800/2400	LP	Directional	1.5	9	55	90	Vertical	15.5	10.5	2.75		Type N(f)	Mast	Outdoor
MD24-12	2400-2485	Mini-Directiona	Directional	1.5	–	–	–	Vertical	–	–	–	–	Type N(f)	Mast	Outdoor
MK24 Series	2400-2485	Mesh Kit	Omni-directional	1.5	5,7,9	–	–	Vertical	–	–	–	–	Type MC, MMCX, RMMCX, RSMA, RTNC, UFL	Mast	Outdoor

RoHS

Die Cast Enclosure

The Die-Cast Enclosure (DCE) series offers a directional VPOL panel antenna that is contained within a die-cast aluminum enclosure. The enclosure adds to the long life of the antenna in outdoor environments. The powder coat paint over aluminum construction offers unsurpassed resistance to corrosion. The die-cast enclosure has extra heavy duty mounting flanges for reliable mounting to poles or surface mounting to walls along with the inclusion of seven engineered hole knockouts which allow for many different configurations of connectors and feedthrus without the need for drilling holes.



• DCE 7x6x2

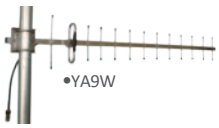
PART NUMBER	FREQUENCY (MHz)	VSWR	GAIN (dBi)	DIMENSIONS (mm)			CONNECTOR TYPES
				LENGTH	WIDTH	HT	
DCE10D-2419-NF	2400/2500	1.5	19	10	2	10	Type N(f)
DCE10D-4924-NF	4940-5850	1.5	24	10	2	10	Type N(f)
DCE10D-912-NF	902-928	1.5	12	10	2	10	Type N(f)
DCE10I-2416-FSMF	2400/2500	1.5	16	10	2	10	Type FSMF, MCM, MMCXP, RMMXP, RSMAM, RTNM, SSMB, UFL
DCE10I-2451-FSMF	2400/5000	2	12	10	2	10	Type FSMF, MCM, MMCXP, RMMXP, RSMAM, RTNM, SSMB, UFL
DCE10I-4919-FSMF	4940-5850	1.7	19	10	2	10	Type FSMF, MCM, MMCXP, RMMXP, RSMAM, RTNM, SSMB, UFL
DCE10I-985-FSMF	902-928	1.5	8	10	2	10	Type FSMF, MCM, MMCXP, RMMXP, RSMAM, RTNM, SSMB, UFL
DCE-ANT2314	2300/2500	1.5	14	7	2	6	Type MC, MMCX, RMMCX, RSMA, RTNC, SSMB, UFL
DCE-ANT2412-MC	2400/2500	1.5	12	7	2	6	Type MC, MMCX, RMMCX, RSMA, RTNC, UFL
DCE-ANT2458-MC	2400/5000	1.5	12,15	7	2	6	Type MC, MMCX, RMMCX, RSMA, RTNC, UFL
DCE-ANT24KIT-MMCX	2400/2500	1.5	12	7	2	6	Type MMCX, RMMCX, RSMA, RTNC, UFL
DCE-ANT3516	3300/3500	1.5	16	7	2	6	Type MC, MMCX, RMMCX, RSMA, RTNC, SSMB, UFL
DCE-ANT5819-7x6x2	4940-5850	1.5	19	7	2	6	–
DCE-ANT5819-MC	4940-5850	1.5	19	7	2	6	Type MC, MMCX, RMMCX, RSMA, RTNC, SSMB, UFL

Vagi®/Yagi Series

The Vagi/Yagi Series are rugged, easy-to-install, high-gain directional antennas used in a wide variety of wireless systems where low cost, good performance and low wind loading are important factors. They include either a VPOL or HPOL configuration, along with a 1.5 VSWR as well. These antennas can be pole mounted in outdoor environments.



•Vagi VA25-16



•YA9W

PART NUMBER	FREQUENCY (MHz)	GAIN (dBi)	BANDWIDTH (DEG)	DIMENSIONS (mm)	CONNECTOR TYPES
			AZ	LENGTH	
VA24-16F	2400-2485	16	25 (E) / 30 (AZ)	22	Type N(f), N (m), RTNC
VA25-16F	2500-2700	16	25 (E) / 30 (AZ)	22	Type N(f), N (m)
YA9 Series	860-960	9,11,13	53, 50,30	19.7	Type N(f), RTNC
YA9W Series	860-960	11,13	45,35	33.5,46	Type N(f)

Point-to-Point

Point-to-Point antennas are outdoor directional antennas that are used to connect two fixed points with a high bandwidth connection. Typically offering 900 MHz, 2.5 GHz, 3.5 GHz, or 5 GHz links, typically from less than one mile to over 30 miles. The antenna provides both single and dual polarity with high gain and tight beamwidths that prevent interference and allow for longer distance links. Wide band performance offers higher bandwidths in wide band multichannel systems.

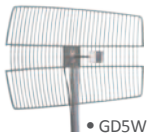
PART NUMBER	FREQUENCY (MHz)	ANTENNA TYPE	VSWR	GAIN (dBi)	BEAM WIDTH (DEG)		POLAR-IZATION	DIMENSIONS (mm)		DIA	CONNECTOR TYPES
					EL	AZ		LENGTH	WIDTH		
DC23HDPF23-PF	2050-2300	Grid	1.5	23	–	–	Vertical	–	–	–	Type N(f)
DC24-24NF	2400-2485	Grid	1.5	24	8	8	Vertical	42	24	–	Type N(f)
DC24BP-23P Series	2400-2485	Grid	1.5	23	8	8	Vertical	42	24	–	Type N(f)
DC24HDPF1P	2400-2485	Grid	1.5	24	8	8	Vertical	42	24	–	Type N(m), N(f), RSMA, RTNC
DC25HDPF2P	2500-2700	Grid	1.5	24	8	8	H or V	42	24	–	Type N(m), N(f)
DC35-26P-NF	3300/3500	Grid	1.5	26	–	–	Vertical	–	–	–	Type N(m), N(f)
DC57-28	5470-5725	Grid	1.5	28	–	–	Vertical	–	–	–	Type N(f)
DC58-29	5725-5850	Grid	1.5	29	–	–	Vertical	–	–	–	Type N(f)
GD24 Series	2400-2485	Grid	1.5	15,19,24	17,11,8	21,17,10	Vertical	16,24,36	12,16.5,28.5	–	Type N(m), N(f), RSMA, RTNC
GD24BP Series	2400-2485	Grid	1.5	14,18,23	17,11,8	21,17,10	Vertical	16,24,36	12,16.5,28.5	–	Type N(f)
GD25 Series	2500-2700	Grid	1.5	15,19,24	17,11,8	21,17,10	Vertical	16,24,36	12,16.5,28.5	–	Type N(m), N(f)
GD35 Series	3300/3500	Grid	1.5	17,20,25	13,8,6	16,12,7	Vertical	16,24,36	12,16.5,28.5	–	Type N(m), N(f)
GD53 Series	5150-5350	Grid	1.5	21,25,28	11	10	Vertical	15.7,24,36	11.8,16.8,28.5	–	Type N(f)
GD57 Series	5470-5725	Grid	1.5	21,25,28	6	6	Vertical	15.7,24,36	11.8,16.8,28.5	–	Type N(f)
GD58 Series	5725-5850	Grid	1.5	22,26,29	6	4	Vertical	15.7,24,36	11.8,16.8,28.5	–	Type N(f)
GD5W Series	4900-5850	Grid	1.5	21,25,28	–	–	Vertical	15.7,24,36	11.8,16.8,28.5	–	Type N(f)
GD9 Series	900-928	Grid	1.5	15,18	22,16.5	31	Vertical	–	–	4	Type N(f)
GD9-DC15-NF	900-928	Grid	1.5	15	22	31	Vertical	42	24	–	Type N(f), N(m)
HDDA3W-25-SP	3300-3800	Parabolic Dish	1.5	25	8.5	8.5	Vertical	–	–	25.5	Type N(f)
HDDA3W-25-DP	3300-3800	Parabolic Dish	1.8	25	8.5	8.5	H/V	–	–	25.5	Type N(f)
HDDA3W-29-SP	3300-3800	Parabolic Dish	1.5	29	6	6	Vertical	–	–	36.5	Type N(f)
HDDA3W-29-DP	3300-3800	Parabolic Dish	1.8	29	6	6	H/V	–	–	36.5	Type N(f)
HDDA5W-29-SP	4900-5875	Parabolic Dish	1.5	29	6	6	Vertical	–	–	25.5	Type N(f)
HDDA5W-29-DP2	4940-5850	Parabolic Dish	1.8	29	6	6	H/V	–	–	25.5	Type N(f)
HDDA5W-32-SP	4900-5875	Parabolic Dish	1.5	32	4	4	Vertical	–	–	36.5	Type N(f)
HDDA5W-32-DP2	4940-5850	Parabolic Dish	1.8	32	4	4	H/V	–	–	36.5	Type N(f)



•HDDA5W



• HDDA3W-29



• GD5W

Omnidirectional

Omnidirectional antennas are outdoor collinear (stick) antennas that service a large, 360 degree area through the means of an omnidirectionl pattern with a 1.5 VSWR. They are the most economical solution for access point or for covering sparsely populated areas. Ranges are typically from five to a maximum of eight miles.

PART NUMBER	FREQUENCY (MHz)	GAIN (dBi)	BEAM WIDTH (DEG)		POLAR-IZATION	DIMENSIONS (mm)			CONNECTOR TYPES
			EL	AZ		LENGTH	WIDTH	HT	
OD24 Series	2400-2485	5,9,12	14,7	360	Vertical	27, 48	–	–	Type N(f), N(m)
OD24-Downtilt Series	2400-2485	7,9	18,14	360	Vertical	21	–	–	Type N(f), N(m)
OD24-7D5	2400-2485	7	18	360	Vertical	21	–	–	Type N(f), N(m)
OD24-9D7	2400-2485	9	14	360	Vertical	27	–	–	Type N(f)
OD24-9-WB	2400/2500	9	14	360	Vertical	27	–	–	Type N(f)
OD24M Series	2400-2485	5,7,9,12	–	360	Vertical	–	0.6	–	Type N(f)
OD49-11D1	4940-4990	11	–	360	Vertical	–	–	–	Type N(f)
OD49M-11D1	4940-4990	11	5	360	Vertical	31	0.6	–	Type N(f)
OD49M-6	4940-4990	6	8.5	360	Vertical	7	0.5	–	Type N(f)
OD58-12	5470-5850	12	–	360	Vertical	–	–	–	Type N(f)
OD58M-12	5470-5850	12	7	360	Vertical	27.5	0.6	–	Type N(f)
OD5W-11	4900-5850	11	–	360	Vertical	–	–	–	Type N(f), N(m)
OD5WM Series	5150-5850	6,8	8.5	360	Vertical	19	0.6	–	Type N(f)
OD9-11D1	860-960	11	7	360	Vertical	–	–	–	Type N(f)
OD9 Series	860-960	5,6,8,11	–	360	Vertical	–	–	–	Type N(f), N(m), RTNC
ODH24 Series	2400-2485	9, 13	20, 7	360	Horizontal	49,27	4	1	Type N(f)
ODH9-9	900-928	9	18	360	Horizontal	62	8	2	Type N(f)
S3307BPNF	3300/3500	9.0	8	Omni-directional	Vertical	28.2	–	1.7	Type N(f)
OF365013D3-FNF	3650-3700	13.0	4.8	Omni-directional	Vertical	43.1	–	1.3	Type N(f)
WTS2333C-FRSMM	3300-3900	2.7	90	360	Vertical	3.78	0.37	–	Type RPSMA



•OD24-9



• s24517pth



• OD58-12



• OD24-7



•OF365013D4-FNF_BW

Sector

Sector antennas are used to sectorize the coverage area in 60, 90, or 120 degree bandwidths, with tighter and wider coverage available. They are typically higher gain and are less prone to interference, and provide a directional pattern with 1.5 VSWR. These antennas include a Type N (female) connector and can be pole mounted in outdoor environments.

PART NUMBER	FREQUENCY (MHz)	GAIN (dBI)	BEAMWIDTH (DEG)		POLARIZATION	DIMENSIONS (mm)		
			EL	AZ		LENGTH	WIDTH	HEIGHT
SA24 Series	2400-2485	9,12,14	30,10	90/120/180	Vertical	10,40	6.5,10.25	2.5,7
SA24-WB Series	2300/2500	16,17, 20	7,8,9	45,60,90,120	Vertical	33.5,34	6.5,7	2.5
SA9-120-13	860-960	12	16	120	Vertical	5.3	11	5
SAH24 Series	2400-2485	12,16	18,7	120	Horizontal	23	4	1
SAH35-90-16	3300/3500	17	6.5	90	Horizontal	35.5	4.7	2.4
SAH58-120-16-WB	5470-5850	16,17	6	90,120	Horizontal	22	5	8
SAH9-120-12	900-928	12	15	120	Horizontal	62	8	2
SO24-120x3-15	2400-2485	15	2	360	Vertical	40	6.5	–
J23014V00-120N	2300/2500	15.5	7	120	Vertical	39.9	4.3	8
J23016S00-90N	2300/2500	16.5	7	90	Dual Slant 45	40	8.2	4.5
J23017S00-65N	2300/2500	18.0	7	65	Dual Slant 45	40.1	6.3	4
SKS230065-18N-001	2300-2700	18	5.5-6.5	65	+45° and -45°	44.9	6.5	2.9
SKS230090-16N-001	2300-2700	16.5	5.5-6.5	90	+45° and -45°	44.9	6.5	2.9
J34014V01-90N	3300/3500	16.5	7	90	Vertical	30.2	5.9	3.4
J33017S00-90N	3300/3500	16.5	7	90	Dual Slant 45	28.2	6.3	11.3
J33017S00-65N	3300/3500	17.0	7	65	Dual Slant 45	28.2	4.8	2.7
J34016V01-60N	3300/3500	17.5	7	60	Vertical	30.2	5.9	3.4
J51014V00-120N	4900-5900	15.0	7	120	Vertical	18.2	4.7	2.9
J51016V00-90N	4900-5900	16.0	7	90	Vertical	18.2	4.7	3.1
J51017V00-60N	4900-5900	17.5	7	60	Vertical	18.2	4.7	2.8
S49016120PNF	4900-5850	15.5	5.5	15	Vertical	24.6	2	2.7
S4901790PNF	4900-5850	16.5	5.5	7	Vertical	24.6	2	2.7
SJS515090-16	5150-5850	16.25	6.5	90	Dual Linear, +45°/-45°	21.9	2.6	5.7



• SAH58

•J51016VOO-90N90N





• J23014V00-120N



• SA24

RooTenna®

RooTenna® panel antennas are designed to allow integration of customers' radio equipment inside a weatherproof compartment. The radio compartment is big enough to house transceivers, amplifiers, and other electronic equipment. The antennas themselves offer a directional pattern with 1.5 VSWR, and can be either surface or wall mounted in outdoor environments.

PART NUMBER	FREQUENCY (MHz)	GAIN (dBI)	BEAMWIDTH (DEG)		POLARIZATION	DIMENSIONS (mm)			CONNECTOR TYPES
			EL	AZ		LENGTH	WIDTH	HEIGHT	
R2T24-19	2400/2500	19	19	16	H or V	18.5	2.5	16.8	Type MC, MMCX, RMMCX, RSMA, RTNC, UFL
R2T2458LW	2400/5000	12	43/22	43/22	H or V	10.75	2.6	10.75	Type MC, MMCX, RMMCX, RSMA, RTNC, UFL
R2T2458W	2400/5000	12	43/22	43/22	H or V	10.75	3.5	10.75	Type MC, MMCX, RMMCX, RSMA, RTNC, UFL
R2T24LW-15	2300/2500	15	30	30	H or V	10.75	3.5	10.75	Type MC, MMCX, RMMCX, RSMA, RTNC, UFL
R2T24W-15	2300/2500	15	30	30	H or V	10.75	3.5	10.75	Type MC, MMCX, RMMCX, RSMA, RTNC, UFL
R2T58-24	4940-5850	24	9	9	H or V	16.25	1.0	14.75	Type MC, MMCX, RMMCX, RSMA, RTNC, UFL
R2T58LW-19	4940-5850	19	15	15	H or V	10.75	2.6	10.75	Type MC, MMCX, RMMCX, RSMA, RTNC, UFL, NHK
R2T58W-19	4940-5850	19	15	15	H or V	10.75	3.5	10.75	Type MC, MMCX, RMMCX, RSMA, RTNC, UFL
R2T9-12	900-928	12	50	45	H or V	18.5	2.5	16.8	Type MC, MMCX, RMMCX, RSMA, RTNC, UFL



• R2T2458 RooTennas



Panel

Flat panel directional antennas offer high gain with a 1.5 VSWR in a thin low profile package. The antennas are constructed of a gray color UV resistant ABS plastic radome with an aluminum backplate. The antenna can be used in horizontal or vertical polarization, and can be surface, pole, or wall mounted.

PART NUMBER	FREQUENCY (MHz)	GAIN (dBI)	BEAMWIDTH (DEG)		DIMENSIONS (mm)		
			EL	AZ	LENGTH	WIDTH	HEIGHT
PA24 Series	2400-2485	13,16,19	35, 26, 17.5	35, 26, 17.5	7.5, 11, 15.3	0.8	7.5, 11, 14.6
PA35-13	3300/3500	13	35	35	7.5	0.8	7.5
PA58 Series	5150-5850	19,24	16,8	16,8	7.5,15.4	0.8	7.5,14.6
PA9-12	900-928	12	40	55	16.2	1.4	14.7
S25015PT	2400-2700	14,15	25	25	10.2	1.3	10.2
S34018PT12NF	3400-3600	18	19	20	10.2	1.3	10.2



• S3307BPNF



• PA58-24 mntd oblq2



• PA58-19 Surface Mount

Telecom - Backhaul Accessories

Adapters

PART NUMBER	DESCRIPTION
AD-MCX-RPSMAF	RPSMA Female to MCX Adapter. Gold Plated Contacts. For Apple Airport
AD-NF-NF	N Female to N Female Barrel Adapter
AD-NF-RPSMAF	RPSMA Female to N Female Adapter. Gold Plated Contacts
AD-NF-RPSMAM	RPSMA Male to N Female Adapter. Gold Plated Contacts
AD-NF-RPTNCM	RPTNC Male to N Female Adapter. Gold Plated Contacts
AD-NFB-SMAF	N Female Bulkhead to SMA Female Adapter, For DCE Products/Mesh.
AD-NM-NM	N Male to N Male Coupler
AD-NM-RPSMAF	RPSMA Female to N Male Adapter. Gold Plated Contacts.
AD-NM-RPSMAM	RPSMA Male to N Male Adapter. Gold Plated Contacts.
AD-NM-RPTNCF	RPTNC Female to N Male Adapter. Gold Plated Contacts.
AD-NM-RPTNCM	RPTNC Male to N Male Adapter. Gold Plated Contacts
AD-NM-SMAF	SMA Female to N Male Adapter. Gold Plated Contacts.
AD-RSMAF-RTNC	RPSMA Female to RPTNC Male Adapter. Gold Plated Contacts.
C195-NM	N Male to RG58, LMR195 Crimp
C400-NF	N Female to RG8/U, LMR400 Crimp
C400-NM	N Male to RG8/U, LMR400 Crimp

Cable Assemblies

PART NUMBER	DESCRIPTION
CA100-MCX-NC-125	Cassy, Coax,125 mm, MCXM NC, LMR100
CA100-NFB-MC-12	Cassy, Coax,12 in, NFB, MCM, LMR100
CA100-NFB-MCX-200	Cassy, Coax, 200 mm, NFB, MCXM, LMR100, RA
CA100-NFB-MCXRA-4	Cassy, Coax, 200 mm, NF, MCXM, LMR100, RA
CA100-NFB-MCXRA375	Cassy, Coax, 375 mm, NFB
CA100-NFB-MMCX-12	Cassy, Coax,12 in, NFB, MMCXP, LMR100 ,RA
CA100-NFB-MMCXS-18	Cassy, Coax,18 in, NFB, MMCXP, LMR100, STR
CA100-NFB-RMMCX-12	Cassy, Coax,12 in, NFB, RMMXP, RG316, RA
CA100-NFB-RSMAM-12	Cassy, Coax,12 in, NFB, RSMAM, LMR100
CA100-NFB-RTNCM-12	Cassy, Coax,12 in, NFB, RTNM, LMR100
CA100-NFB-SMAM-12	Cassy, Coax,12 in, NFB, SMAM, LMR100
CA100-NFB-SMAM-8	Cassy, Coax, 8 in, NFB, SMAM, LMR100
CA100-NM-MC-12	Cassy, Coax,12 in, NM, MCM, LMR100
CA100-NM-MMCX-12	Cassy, Coax,12 in, NM, MMCXP, LMR100, RA
CA100-NM-MMCX-8	Cassy, Coax, 8 in, NM, MMCXP, LMR100, RA
CA100-NM-RASMAM-12	Cassy, Coax,12 in, NM, SMAM, LMR100, RA
CA100-NM-RSMAM-12	Cassy, Coax, 12 in, NM, RSMAM, RG316, RA
CA100-NM-RSMAM-6	Cassy, Coax, 6 in, NM, RSMAM, LMR100
CA100-NM-RSMAM-8	Cassy, Coax, 8 in, NM, RSMAM, LMR100
CA100-NM-RTNCM-12	Cassy, Coax, 12 in, NM, RTNM, LMR100
CA100-NM-SMAM-12	Cassy, Coax, 12 in, NM, SMAM, LMR100
CA100-RPTNCF-NC-6	Cassy, Coax, 6 in, RTNF, NC, LMR100
CA100-RSMAM-RPSMA	Cassy, 12 in, RSMAM, RSMAF, RG-316, LMR100
CA100-SMAF-RAMCX-3	Cassy, Coax, 3 in, SMAF, MCXM, LMR100, RA
CA100-SMAM-RSMAM-8	Cassy, Coax, 8 in, SMAM, RSMAM, LMR100
CA100-SMAM-SMAM-12	Cassy, Coax, 12 in, SMAM, SMAM, LMR100
CA100-SMAM-SMAM-18	Cassy, Coax, 18 in, SMAM, SMAM, LMR100
CA100-SMAM-SMAM-8	Cassy, Coax, 8 in, SMAM, SMAM, LMR100
CA100-TNCF-NC-6	Cassy, Coax, 6 in, TNCF, NC, LMR100, WHT
CA100MCXRA-SMBRA11	Cassy, Coax, 11 in, MCXM, SMBM, LMR100, RA
CA100NFB-MCXRA200	Cassy, Coax, 200 mm, NF, MCXM, LMR100, RA
CA100NFB-RASMAM12	Cassy, Coax, 12 in, NFB, SMAM, LMR100, RA

Cable Assemblies (cont'd)

PART NUMBER	DESCRIPTION
CA100RSMAM-RASMA12	Cassy, Coax, 12 in, RSMAM, SMAM, LMR100, RA
CA100RTNCM-RASMA12	Cassy, Coax, 12 in, RTNM, SMAM, LMR100, RA
CA100SMAF-RPSMAM3	Cassy, Coax, 3 in, SMAF, RSMAM, LMR100
CA100SMAM-RSMAM12	Cassy, Coax, 12 in, SMAM, RSMAM, LMR100
CA100SMAM-SMAFB12	Cassy, Coax, 12 in, SMAM, SMAF, LMR100, BULKHEAD
CA178-NFB-UFL-12	Cassy, Coax, 12 in, NFB, UFL, RG178
CA178-NFB-UFL-5	Cassy, Coax, 5 in, NFB, UFL, RG178
CA178-NFB-UFL-8	Cassy, Coax, 8 in, NFB, UFL, RG178
CA178-NM-UFL-12	Cassy, Coax, 12 in, NM, UFL, RG178
CA178-NM-UFL-6	Cassy, Coax, 6 in, NM, UFL, RG178
CA178-NM-UFL-8	Cassy, Coax, 8 in, NM, UFL, RG178
CA178-RTNCB-MMCX-6	Cassy, Coax, 6 in, RTNF, MMCXP, RG178, RA, BH
CA178-RTNCB-UFL-6	Cassy, Coax, 6 in, RTNF, UFL, RG178
CA178-SMAM-UFL-4	Cassy, Coax, 4 in, SMAM, UFL, RG178
CA178-TNCFB-UFL-5	Cassy, Coax, 5 in, TNCF, UFL, RG178, BH
CA178RSMAFB-UFL12	Cassy, Coax, 12 in, RSMAF, UFL, RG178, BULKHEAD
CA178RTNCB-MMCX150	Cassy, Coax, 150 mm, RTNF, MMCXP, RG178, RA, BH
CA178RTNCBRA-MMCX4	Cassy, Coax, 6 in, RTNF, MMCXP, RG178, RA, BH
CA195-NM-NM-12	Cassy, Coax, 12 in, NM NM, LMR195
CA195-NM-RSMAM-36	Cassy, Coax, 36 in, NM RSMAM, LMR195
CA195-NM-SMAM-3	Cassy, Coax, 36 in, NM, SMAM
CA195-NM-SMAM-6	Cassy, Coax, 72 in, NM, SMAM
CA195-SMAM-SMAM-38	Cassy, Coax, 38 in, SMAM SMAM, LMR195, WHT
CA195SMAM-RSMAM24	Cassy, Coax, 24 in, SMAM RSMAM, LMR195
CA400-NM-NM-48	N Male to N Male Jumper, LMR400, 48 in
CA400-NM-RPSMAM-72	Cassy, Coax, 72 in, NM RSMAM, LMR400
CA405-NFB-RASMA-3	Cassy, Coax, 3.5 in, NFB SMAM, TFLEX405, RA
CA405-SMA-MMCX-117	Cassy, Coax, 117 mm, SMAF MMCXP, TFLEX405, RA, BH
CA405RTNCB-MMCX150	Cassy, Coax, 150 mm, RTNF MMCXP, TFLEX405, RA, BH
CA405RTNCB-MMCX228	Cassy, Coax, 228 mm, RTNF MMCXP, TFLEX405, RA, BH
CA405RTNCB-MMCX250	Cassy, Coax, 250 mm, RTNF MMCXP, TFLEX405, RA, BH

DC to DC Converter

PART NUMBER	DESCRIPTION
DCDC-1032-5	DC-DC Conv,10V-32VDC INP 3A MAX LD,15W MAX
DCDC-1532-5/12	DC-DC Conv,15V-32VDC IN 3A/1.25A MAX LD,15W MAX
DCDC-1632-12	DC-DC Conv,16V-32VDC INP 1.25A MAX LD,15W MAX

Die Cast Enclosures

PART NUMBER	DESCRIPTION
DCE-7x6x2	Die Cast Aluminum Enclosure with 7 engineered knockouts - Nema 6 Rated - with pole mount bracket
DCE-H-10x10x2	10x10x2 Hinged Die Cast Aluminum Enclosure with 7 Engineered knockouts - Nema 6 Rated - with pole mount bracket
DCE-H-7x6x2	7x6x2 Hinged Die Cast Aluminum Enclosure with 7 Engineered knockouts - Nema 6 Rated - with pole mount bracket

Telecom - Backhaul Accessories

Mounts

PART NUMBER	DESCRIPTION
MM-110N, -RTNC, -SMAM	Vehicle Magnetic Mount - Large (4" dia, 10' LMR195, N Female, RTNC, or SMAM Connector)
MM-90N	Vehicle Magnetic Mount - Small (3.5" dia, 10' LMR195, N Female Connector)
MM-RD-RSMA, -SMAF	Mount,Mag,195-5'-RSMAM, -SMAF RSMAF Mag Mount
MM-SM-LP-NF-26	Mount, SMLP,RG58-26.6 in, N VEHICLE MOUNT
MM-SM-LPN	Mount, SMLP,240-10', NF NF Vehicle Mount
MM-SMN, -RPTNC, -SMAM	Mount, SM, 240-10' or 240-15', NF, or RTNM, or SMAM NF Vehicle Mount
MM-TMN	Mount, TM, 240-10', NF NF Vehicle Mount

POE-Power Over Ethernet

PART NUMBER	DESCRIPTION
POE-12i	POE Power Supply/Inserter Input 90-264VAC, Output 12VDC at 1A 12W
POE-12s-afi	POE Splitter 802.3af, Output 12VDC at 1A 12W
POE-18i4s POE-4x12i	Four Port POE Power Supply/Inserter Input 100-240VAC, Output 12VDC at .7A 12W Non 802.3af
POE-18i	POE Power Supply/Inserter Input 90-264VAC, Output 18VDC at .7A 12W
POE-18i-EU	POE Power Supply/Inserter Input 90-264VAC, Output 18VDC at .7A 12W (Europe Power Cord)
POE-18i-NC	POE Power Supply/Inserter Input 90-264VAC, Output 18VDC at .7A 12W (No Power Cord)
POE-4x18i	Four Port POE Power Supply/Inserter Input 90-264VAC, Output 18VDC at .7A 12W
POE-24i	POE Power Supply/Inserter Input 90-264VAC, Output 24VDC at .5A 12W
POE-24i-CI	POE Power Supply/Inserter Input 90-264VAC, Output 24VDC at .5A 12W, Current Detection Indicator
POE-24i-EU	POE Power Supply/Inserter Input 90-264VAC, Output 24VDC at .5A 12W (Europe Power Cord)
POE-4x24i	Four Port POE Power Supply/Inserter Input 90-264VAC, Output 24VDC at .5A 12W
POE-24iR	POE Power Supply/Inserter Input 90-264VAC, Output 24VDC at .5A 12W, pin 4,5 (-), pin 7,8 (+)
POE-24iR-CI	POE Power Supply/Inserter Input 90-264VAC, Output 24VDC at .5A 12W,, Current Detection Indicator
POE-24s-afi	POE Splitter 802.3af, Output 24VDC at .5A 12W
POE-48i	POE Power Supply/Inserter Input 90-264VAC, Output 48VDC at 0.35A 16.8W, Lightning/Surge protection on Ethernet pairs
POE-48i-CI	POE Power Supply/Inserter Input 90-264VAC, Output 48VDC at 0.35A 16.8W, Lightning/Surge protection on Ethernet pairs, Current Detection Indicator
POE-48I-CI-EU	POE Power Supply/Inserter Input 90-264VAC, Output 48VDC at 0.35A 16.8W, Lightning/Surge protection on Ethernet pairs, Current Detection Indicator (Europe Power Cord)
POE-48i-EU	POE Power Supply/Inserter Input 90-264VAC, Output 48VDC at 0.35A 16.8W, Lightning/Surge protection on Ethernet pairs (Europe Power Cord)
POE-48i-NC	POE Power Supply/Inserter Input 90-264VAC, Output 48VDC at 0.35A 16.8W, Lightning/Surge protection on Ethernet pairs (No Power Cord)
POE-48i12s	POE System - Input 90-264VAC, Output 12VDC 1A
POE-48i12s-afi	POE System - Input 90-264VAC, Output 12VDC 1A, AFI
POE-4x48i	Four Port POE Power Supply/Inserter Input 90-264VAC, Output 48VDC at 0.35A 16.8W, Lightning/Surge protection on Ethernet pairs
POE-4x48i-afi	Four Port POE Power Supply/Inserter Input 90-264VAC, Output 48VDC at 0.35A 16.8W, Lightning/Surge protection on Ethernet pairs -AFI
POE-48i5s	POE System - Input 90-264VAC, Output 5VDC 2.4A
POE-48i5s-afi	POE System - Input 90-264VAC, Output 5VDC 2.4A, AFI
POE-48iD	POE Power Supply/Inserter, Midspan Intelligent Detect, 48VDC output @ 0.35A, 16.8W, Lightning/Surge protection on Ethernet pairs

POE-Power Over Ethernet (cont'd)

PART NUMBER	DESCRIPTION
POE-48iD-EU	POE Power Supply/Inserter, Midspan Intelligent Detect, 48VDC output @ 0.35A, 16.8W, Lightning/Surge protection on Ethernet pairs - (Europe Power Cord)
POE-48iD-NC	POE Power Supply/Inserter, Midspan Intelligent Detect, 48VDC output @ 0.35A, 16.8W, Lightning/Surge protection on Ethernet pairs (No Power Cord)
POE-55i4sG-AFI	POE, AF Inj, 55VDC, 30W, 100-240VAC, GBIT, 802.3af
POE-5s-afi	POE Splitter 802.3af , Output 5VDC at 2.4A 12W
POE-9s-afi	POE Splitter 802.3af, Output 9VDC at .75A 12W
POE-HP-24i	POE Power Supply/Inserter Input 90-264VAC, Output 24VDC at 2A 50W
POE-HP-50i	POE Power Supply/Inserter Input 90-264VAC, Output 50VDC at 1A 50W Lightning/Surge protection on Ethernet pairs
POE-PS-150-001	POE, Psplit, 150 mm, RJ45 TO RJ45/DC, NON 802.3af
ESP-100-POE	Network Lightning/Surge Protector, 100Mbps Data Rate, LAN/POE 7.5V/70V Clamp Voltage, 10KA Surge

RJ45

PART NUMBER	DESCRIPTION
RJ45-ECS	RJ45 Field Replaceable Ethernet Connector System. Passes RJ45 Plug and seals cable to IP68. Also available in 4 & 6 in.
RJ45-ECS-NR	RJ45 Field Replaceable Ethernet Connector System. Passes RJ45 Plug and seals cable to IP68. No Relief
RJ45-FT	RJ45 Field Installable Feedthru Adapter. Passes RJ45 Plug and seals cable to IP68. 10 pack

Surge Protectors

PART NUMBER	DESCRIPTION
SP3-90-6-BFF, -BFM	Surge Protector – 90V – 100MHz to 3GHz, N Fem to N Fem, .4dB IL, 6KA Discharge
SP6-230-BFF, -BFM	Surge Protector – 230V – DC to 6GHz, N Fem to N Fem, .2dB IL@3GHz, .4dB IL@5GHz
SP6-230RSMAM-RSMAF	Surge Protector – 230V – DC to 6GHz, RSMAM to RSMAF,
SP6DC-BFF	Surge Protector- 1/4 Wave DC GROUND, 2300-6000MHz, .3dB IL, N Fem to N Fem
ESP-100-POE	Network Lightning/Surge Protector, 100Mbps Data Rate, LAN/POE 7.5V/70V Clamp Voltage, 10KA Surge

Brackets

PART NUMBER	DESCRIPTION
UM, UM-UB, UML	Universal Mount, Ubolt Kit for pole mounting, Universal Mount - Long
WMB-HD	HD Series Wall Mount Bracket - For mounting a pole mount antenna to a wall. 8"standoff from wall, 2" diameter mounting tube.
WMB8	Wall Mount Bracket - For mounting a pole mount antenna to a wall. 8"standoff from wall, 1.25" diameter mounting tube.





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