



RFS Technologies
an Amphenol Company

PASSIVE DAS

SELECTION GUIDE

*5G-Ready Wireless Network
Solutions for Buildings and Tunnels*



RFS TECHNOLOGIES, INC. WIRELESS INDOOR SOLUTIONS

APRIL 21, 2025

RFS TECHNOLOGIES, INC.

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KEEP PEOPLE CONNECTED WITH THE ULTIMATE PASSIVE DAS SOLUTIONS

Keeping people connected with high-quality, uninterrupted wireless communications indoors and underground is essential to protect lives, run businesses and deliver the seamless wireless experience people expect. It's also extremely challenging.



Our passive distributed antenna system (DAS) solutions incorporate world-first inventions and innovations to keep people connected at all times, whether they're deep underground, at ground level or many stories above ground.

ULTRA-WIDEBAND, 5G-READY SOLUTIONS

Every component in our end-to-end passive DAS solutions is designed with the future in mind to support 5G wireless up to 6 GHz services globally and protect your investments. Our solutions include:

- Ultra-wideband RF products
- CELLFLEX® coaxial cables
- ClearFill®Line plenum-rated cables
- RADIAFLEX® radiating cables

THE HIGHEST POSSIBLE LEVELS OF FIRE RESISTANCE

Our indoor communications cables have achieved the world's highest ratings for fire resistance and low-smoke, zero-halogen (LSZH):

- RFS Technologies, inc. DragonSkin™ is the first and only in-building coaxial cable to receive UL 2196 certification with no metal conduit, extensive wrapping or fire-resistant enclosure. This half-inch cable is thinner, safer, more flexible, and lighter weight than any other in-building coax cable with this level of fire resistance.
- RFS Technologies, inc. RADIAFLEX radiating cables and CELLFLEX coaxial cables achieved the top Construction Products Regulation (CPR) rating of B2ca with a d0 droplets rating.



THE FASTEST MIMO Solutions Available

We are the only vendor that can enable MIMO end-to-end, and we have achieved two world firsts:

- The world's first pair of ultra-broadband radiating cables for cross-polarized 2x2, 4x4 and higher MIMO applications.
- A new world record for download speeds in tunnels with a 4x4 MIMO solution for the Folio Line high-speed railway project that reached 560 Mbps.

PROVEN IN HIGH-PROFILE DEPLOYMENTS

Our passive DAS solutions have been trusted to bring fast and reliable wireless communications to some of the most iconic and challenging indoor environments for more than 40 years. Here are just a few of four recent projects:

- Chicago Transit System
- Toronto Metro System
- Montreal Light Rail
- NORCAT – Northern Centre for Advanced Technology, Sudbury ON.
- Vale Mining Projects
- Boston Metro
- NYC Metro
- New York City Transit
- Long Island Rail Road
- MARTA
- LA Metro
- San Francisco MTA
- Hartsfield Airport – Atlanta
- La Guardia – NYC
- JFK Airport- NYC

RFS TECHNOLOGIES, INC IS YOUR FULL-SERVICE PASSIVE DAS PARTNER

We have the end-to-end passive DAS solutions, expertise and experience to support wireless indoor deployments with:

- Any complexity level
- Any business model
- Any frequencies
- Any network technologies
- Any commercial or mission-critical communications services



To further simplify deployments, we offer passive DAS solution design and deployment services, and can provide complete turnkey passive DAS solutions.

BRINGING WIRELESS NETWORKS CLOSER TO PEOPLE

HIGH PERFORMING SOLUTIONS END-TO-END

In addition to our world-renowned CELLFLEX, ClearFill Line and RADIAFLEX cables, our end-to-end passive DAS solutions include:

- Compact and lightweight broadband and ultra-broadband indoor antennas that deliver high performance and low visual impact
- Combiners and couplers to distribute RF signals in the most efficient and effective way possible
- Diplexers and triplexers to combine and separate signals in different wireless bands
- Power splitters that evenly split input signals with minimal reflections or loss
- Loads that terminate all types of open RF ports

All of our non-cable components are proven to maintain overall system performance and key performance characteristics such as passive intermodulation (PIM) performance.

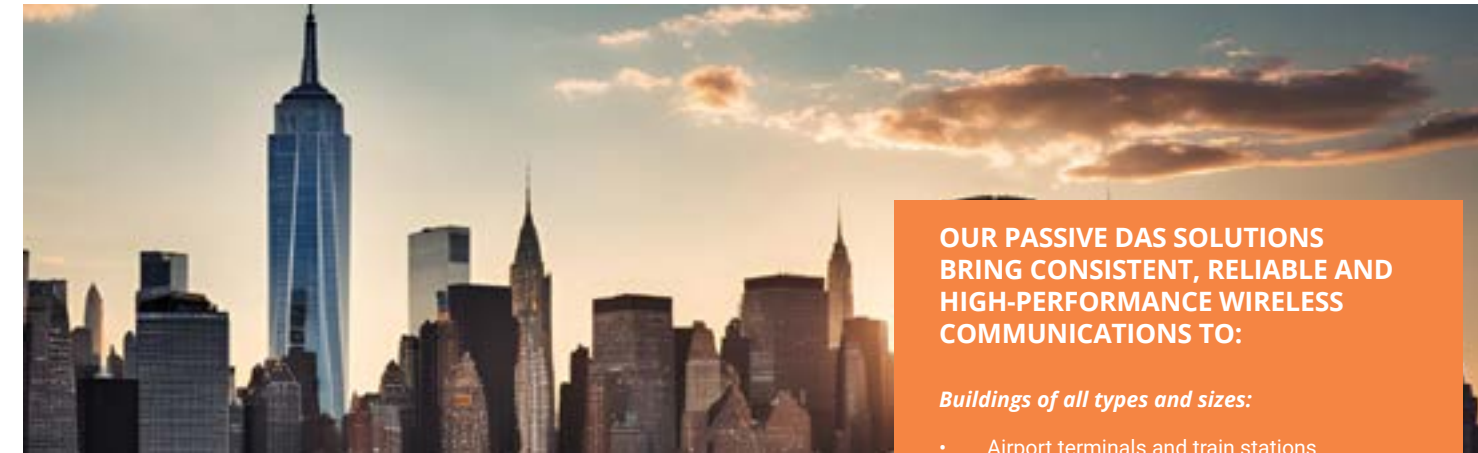
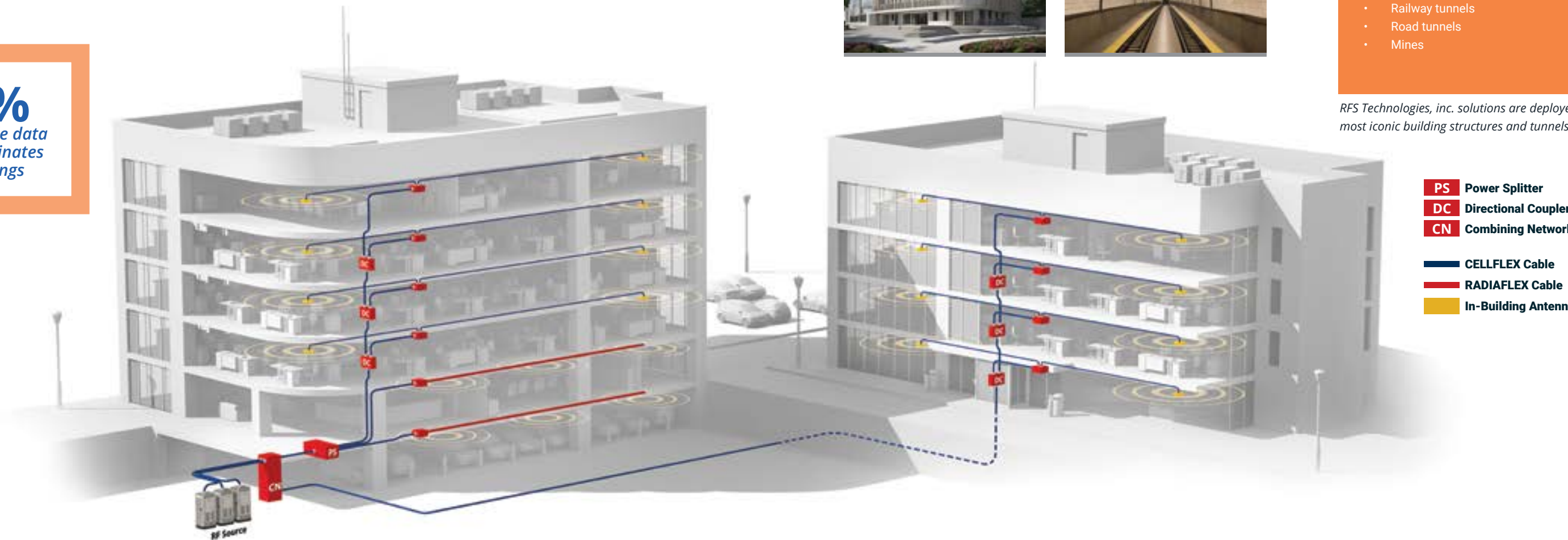
TAILORED AND SCALABLE FOR ANY INDOOR OR UNDERGROUND ENVIRONMENT

Every RFS Technologies passive DAS solution is purpose-built to match business objectives, application requirements and physical environment. We can tailor our solutions for any indoor or underground environment, from the most basic to those with the most difficult and complex RF challenges.

DELIVERING LOW TOTAL COST OF OWNERSHIP

Once installed, our passive DAS solutions require no maintenance and consume no electricity. These savings keep costs down and ensures error-free operation and high system availability —key requirements for mission-critical services.

80%
of all mobile data
traffic originates
in buildings



OUR PASSIVE DAS SOLUTIONS BRING CONSISTENT, RELIABLE AND HIGH-PERFORMANCE WIRELESS COMMUNICATIONS TO:

Buildings of all types and sizes:

- Airport terminals and train stations
- Stadiums and arenas
- Shopping malls
- Multi-dwelling units (MDUs)
- Resorts and hotels
- Office and industrial complexes
- Oil platforms
- Hospitals
- School campuses
- Conference centers
- Public buildings such as museums, art galleries, concert halls and libraries
- Tourist centers

Underground environments of all types and depths:

- Metro stations and lines
- Railway tunnels
- Road tunnels
- Mines



RFS Technologies, inc. solutions are deployed in some of the most iconic building structures and tunnels in the world.

- PS** Power Splitter
- DC** Directional Coupler
- CN** Combining Network
- CELLFLEX Cable**
- RADIAFLEX Cable**
- In-Building Antenna**

CABLES AND CONNECTORS FOR EVERY DAS APPLICATION

RFS Technologies, inc. coaxial and radiating cables are designed to meet in-building communications requirements today and tomorrow. Our high-quality connectors maintain signal integrity end-to-end.

CELLFLEX® LOW-LOSS CABLES

The CELLFLEX makes up the largest corrugated transmission-line portfolio in the wireless infrastructure industry. The foam dielectric cables combine remarkable flexibility with high strength and superior electrical performance to ensure uninterrupted communications throughout buildings. This premium transmission line family is backed by a complete line of accessories, including the renowned OMNI FIT™ connector range.

Twenty unique CELLFLEX types, ranging in size from 1/4" to 1-5/8", provide users with a perfect match for even the most complicated and demanding applications. Every cable comes with a guarantee of reliability, performance and cost-effectiveness.

OMNI FIT™ CONNECTOR FAMILIES

RFS Technologies, inc. connectors are designed for high performance, easy installation and full compatibility throughout the CELLFLEX family. The entire range of innovative OMNI FIT™ Premium and OMNI FIT™ Standard connectors work with both copper and aluminum cables. A perfect complement to the CELLFLEX® transmission line range, OMNI FIT™ connectors provide users with familiar connection options, premium electrical characteristics and reliable, long-life use.

RFS Technologies, inc. OMNI FIT™ Standard connectors are designed to meet and exceed industry standard Voltage Standing Wave Ratio (VSWR) and PIM performance. The connectors offer a cost-effective, high-quality connector-to-cable interface for easy, fast and safe connector attachment.

CELLFLEX Flame-Retardant Cables

SIZE	CABLE	CHARACTERISTIC
1/4"	SCF14-50 JFN	Superflexible
1/2"	SCF12-50 JFN	Superflexible
1/2"	LCF12-50 JFN	Low Loss
7/8"	LCF78-50 JFNA	Low Loss
1-1/4"	UCF114-50 JFNA	Low Loss
1-5/8"	LCF158-50 JFNA	Low Loss



COMPLETE SHIELDING

The solid outer conductor on CELLFLEX coaxial cables creates a continuous RFI/EMI shield that minimizes system interference.

OUTSTANDING INTERMODULATION PERFORMANCE

The solid inner and outer conductors virtually eliminate intermodulation.

WIDE RANGE OF APPLICATIONS

CELLFLEX cables support frequency bands up to 6000 MHz to enable a wide range of in-building applications.

LOW VSWR

Special low voltage standing wave ratio (VSWR) CELLFLEX variants help maintain system integrity.

HIGH POWER RATING

Low attenuation, excellent heat transfer properties and temperature stabilized dielectric material ensure safe, long-term operation at high transmit power levels.



RADIAFLEX® RADIATING CABLES

RADIAFLEX is the industry's most advanced portfolio of 5G-ready radiating cables for wireless indoor communications. RADIAFLEX radiating cables:

- Support all services up to 6 GHz with high performance, making them ideal for multiband, multi-operator applications in the most challenging indoor and underground environments
- Take advantage of 3.5 GHz spectrum and accelerate to 5G in buildings and tunnels

SUPPORT ANY APPLICATION

RADIAFLEX radiating cables are available in several families with different bending radii, performance levels and outer conductor types to meet any application requirements:

- In-building and in-tunnel applications that require the highest possible radiating cable performance to support throughput-optimized 5G coverage solutions and the highly reliable systems needed for mission-critical wireless communications
- Heavy-duty in-building and mining applications
- In-vehicle applications
- Plenum-rated installations

TAKE 5G INTO TUNNELS

RADIAFLEX 5G radiating cables are the only radiating cables on the market that support spectrum up to 4.2 GHz with the lowest loss. Due to the stopband-free design, the cables operate in all 3GPP standardized frequency bands up to 4.2 GHz. These future-ready cables simultaneously support commercial wireless applications and mission-critical services, making them ideal for the next generations of wireless applications in tunnels as well as spectrum rebanding and refarming projects.

MAXIMIZE CAPACITY WITH MULTIBAND MIMO

Combining RFS Technologies' vertically polarized RAY and horizontally polarized RLK product families takes advantage of unique cross-polarization effects to optimize MIMO conditions in tunnels. With two "perfect match" radiating cables, you have new opportunities to create a MIMO solution that takes in-tunnel data rates to higher levels.

INCREASE FIRE SAFETY

RADIAFLEX cables are low-smoke and halogen-free, meet all major North American standards UL1666, ASTM E 662, NES711, NES713 and NFPA130 for flame and fire retardancy.



RADIAFLEX Radiating Cable SELECTION GUIDE

	5G Commercial Radio									
	Mission Critical		4G Commercial Radio				5G Commercial Radio			
	75-450 MHz	600-960 MHz	617-960 MHz	1700-1900 MHz	2200 MHz	2700 MHz	3800 MHz	4200 MHz	4900 MHz	6000 MHz
5G RADIAFLEX Radiating Cable Solution										
RLKX114-50*	+	++	++	++	++	+++	+++			
RLKX114-50B	+	++	++	++	++	+++	+++	+++		
RAYX114-50*	+	++	++	++	++	+++	+++			
RE60										+++
4G RADIAFLEX Radiating Cables										
RLKU158-50*	+	++	++	+++	+++	+++				
RAYA158-50*	+	++	++	+++	+++	+++				
RLKU114-50*	+	++	++	+++	+++	+++				
RAYA114-50*	++	++	++	+++	+++	+++				
RLKU78-50	+	++	++	+++	+++	+++				
RLKU12-50	+	++	++	+++	+++	+++				
Mission Critical Radio Application										
RLK158-50	+++	++	++							
RLK114-50	+++	++	++							
RLK78-50	+++	++	++							
RLK12-50	+++	++	++							
GSM-R Applications										
RAY158-50	++	+++	+++							
RAY114-50	++	+++	+++							
RAY78-50	++	+++	+++							
Diverse Applications										
RCA12-50JPL**	+	+	+	+	+	+	+	+	+	+
RCF12-50	+	+	+	+	+	+	+	+	+	+
RCF78-50	+	+	+	+	+	+	+			

* MIMO cables
** different jacket colors available

RADIAFLEX Radiating Cables

CABLE	JACKET OPTION		
	JFNA	JFLA	JPL*
RADIAFLEX RLK types 1/2"	Fire Retardant Jacket	Fire Retardant Jacket with additional Fire Barrier	Plenum Rated
RADIAFLEX RLK, RAY types 7/8"			Not Available Yet
RADIAFLEX RLK, RAY types 1-1/4"			
RADIAFLEX RLK, RAY types 1-5/8"			

* different jacket colors available

RCA12-50JPL* PLENUM-RATED FLEXIBLE RADIATING CABLE

RFS Technologies RCA12-50 PLENUM rated RADIAFLEX cable, is a cutting-edge solution designed to meet the highest standards in the industry. This product reflects our commitment to innovation and excellence, ensuring superior performance and reliability for our customers.

The RCA12-50 cable is a flexible half-inch radiating cable designed to support 5G from DC to 6GHz, making it ideal for public safety, commercial wireless, private LTE/5G, and WiFi applications. Plenum rated 1/2 inch radiating cable functions as a distributed antenna to provide coverage in large building complexes, tunnels and mines.

Fire performance/ Plenum Rating: RFS Technologies' First Plenum Rated Radiating Cable, certified and listed by ETL to UL444, tested to NFPA262 Plenum Rating. The RCA12-50 cable has been tested according to NFPA 262 standards, ensuring minimal flame spread and smoke density. This rigorous testing guarantees that our cable meets the highest safety requirements for plenum-rated installations.

FREQUENCY (MHz) SELECTION
600
900
1800/1900
2200
2400
2500
2700
6000

TEMPERATURE SPECIFICATIONS		
Storage Temperature	°C(°F)	40 to 85 (-40 to 185)
Installation Temperature	°C(°F)	-20 to 60 (-4 to 140)
Operation Temperature	°C(°F)	-40 to 85 (-40 to 185)

*different jacket colors available



CLEARFILL® LINE PLENUM-RATED CABLES

RFS Technologies, inc. ClearFill®Line plenum-rated wideband cables deliver outstanding electrical and mechanical performance, and operate in frequencies from DC to 6 GHz to support all in-building wireless technologies and applications. These air dielectric coaxial cables are thoroughly tested for safe use within the “environmental air handling space” in ceilings as well as in more traditional plenum applications. They’re available in copper or lighter weight aluminum models to meet any installation requirements. Meets/Exceeds UL 910, NEC 820-53 (a) CMP, NFPA-262.

IMPROVE IN-BUILDING WIRELESS NETWORK PERFORMANCE

ClearFill®Line plenum-rated cables provide low attenuation and excellent return loss.

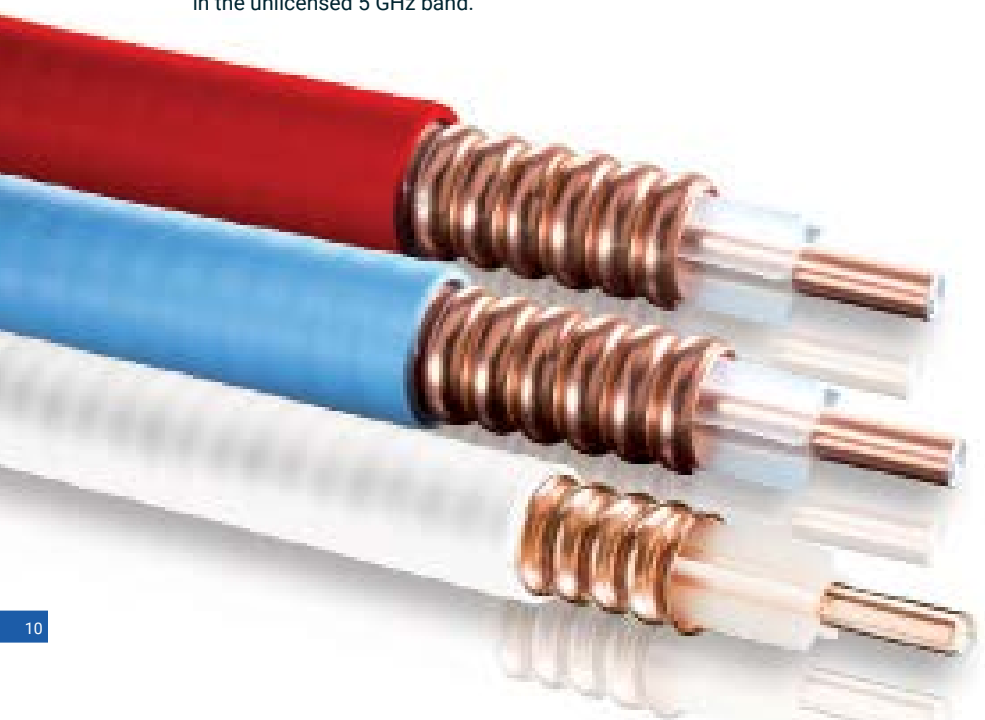
They also feature robust construction that reduces the risk of performance issues:

- A continuous, star-shaped dielectric provides complete support for the inner conductor to eliminate electrical and mechanical problems in tight bending areas.
- The solid outer conductor creates a continuous RFI/EMI shield that minimizes system interference.

FREQUENCY RANGE (MHz)	RETURN LOSS (dB)	VSWR
698-960	24	1.13
1395-1432	24	1.13
1700-2155	24	1.13
2300-2700	20	1.22
3550-4200	18	1.29
5150-6000	18	1.29

WIDEBAND SUPPORT

With wideband spectrum support up to 6 GHz, ClearFill Line plenum-rated cables make it easy to take advantage of newly available Citizens Broadband Radio Service (CBRS) spectrum in the 3.5 GHz band and LTE License Assisted Access (LAA) spectrum in the unlicensed 5 GHz band.



Wideband operation
Support technologies and applications in bands ranging from DC up to 6GHz

CLEARFILL® LINE PLENUM-RATED CABLES

Plenum-Rated Cables

SIZE	MODEL NUMBER	JACKET COLOR	CABLE WEIGHT kg/m (lb/ft)	OUTER CONDUCTOR MATERIAL
1/2"	ICA12-50JPL	Blue	0.246 (0.165)	Corrugated Copper
1/2"	ICA12-50JPLL	Blue	0.238 (0.16)	Corrugated Aluminum
1/2"	ICA12-50JPLW	White	0.246 (0.165)	Corrugated Copper
1/2"	ICA12-50JPLLW	White	0.238 (0.16)	Corrugated Aluminum
1/2"	ICA12-50JPLR	Red	0.246 (0.165)	Corrugated Copper
1/2"	ICA12-50JPLLR	Red	0.238 (0.16)	Corrugated Aluminum
1/2"	ICA12-50JPLB	Black	0.246 (0.165)	Corrugated Copper
1/2"	ICA12-50JPLLB	Black	0.238 (0.16)	Corrugated Aluminum

RFS Technologies, inc. red plenum coaxial cables for public safety applications are best-in-class UHF/VHF cables that enable outstanding electrical performance for iDAS and oDAS emergency communication applications.

Plenum-Rated Jumper Cables

SIZE	MODEL NUMBER	CHARACTERISTIC	CONNECTOR A	CONNECTOR B	LENGTH m (ft)
1/2"	43M43MI12P-030FFP	Blue, PVC	4.3-10 Male	4.3-10 Male	0.91 (3)
1/2"	43M7MI12P-030FFP	Blue, PVC	4.3-10 Male	7-16 Male	0.91 (3)
1/2"	43MNM12P-030FFP	Blue, PVC	4.3-10 Male	N Type Male	0.91 (3)
1/2"	7M7MI12P-030FFP	Blue, PVC	7-16 Male	7-16 Male	0.91 (3)
1/2"	7MNM12P-030FFP	Blue, PVC	7-16 Male	N Type Male	0.91 (3)
1/2"	NMNM12P-030FFP	Blue, PVC	N Type Male	N Type Male	0.91 (3)

PLENUMSHIELD™ PLENUM-RATED AIR-DIELECTRIC COAXIAL CABLES

RFS Technologies' PlenumShield™ combines our renowned ICA12 plenum-rated coaxial cable with a high-performance metal sheathing to create an all-in-one solution that enables a simpler installation process. PlenumShield™ is an approved alternative to additional metal raceways and conduits in ERRCS systems, while simultaneously delivering enhanced electrical performance for Public Safety, DAS/BDA, and commercial wireless networks up to 6GHz.

APPLICATIONS

PlenumShield™ is an ideal solution for a variety of applications, especially in installations where cost-effective plenum-rating and/or fire-resistant performance is desired. The flexibility of our cable also makes it ideal for DAS/BDA installations and commercial applications where there are complex and tight installation spaces.

CERTIFICATIONS

PlenumShield™ meets/exceeds the highest safety and performance standards, UL 444, UL 910, NEC 820-53 (a) CMP, CSA C.22.2/FT6, NFPA-262, including compliance with NFPA 1221, NFPA 72, and other relevant fire codes. Additionally, it is endorsed by fire marshals around the country for critical infrastructure installations.

PlenumShield™ Plenum-Rated Air Dielectric Cables

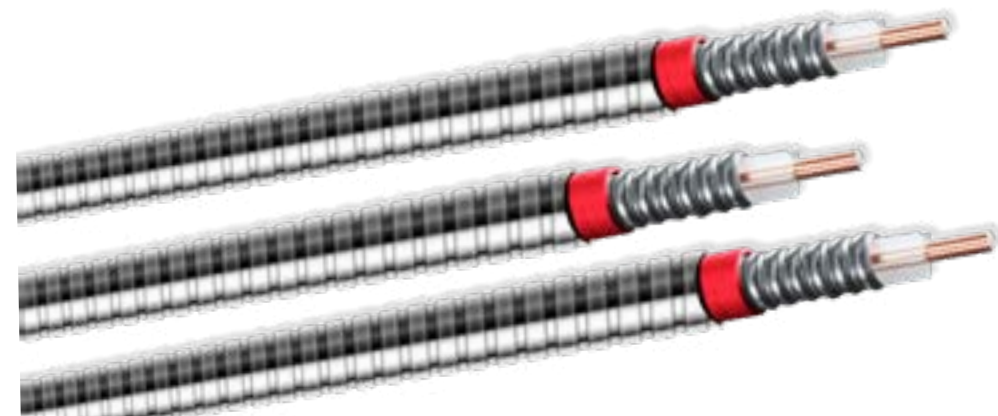
SIZE	MODEL NUMBER	CABLE WEIGHT lb/ft (kg/m)	OUTER CONDUCTOR MATERIAL
1/2"	ICA12-50JPLL-ARMR	0.23 (0.34)	Corrugated Aluminum

CONNECTOR COMPATIBILITY GUIDE

MODEL NUMBER	DESCRIPTION	INSTALLATION PREPARATION TOOLS
NM-LCF12-C02-6	CONN NM LCF12-50 J+L OS OR 6GHZ	TRIM-SET-L12-C02
NF-LCF12-C02-6	CONN NF LCF12-50 J+L OS OR 6GHZ	TRIM-SET-L12-C02
NM-LCF12-D01	CONN NM LCF12-50 J+L OP OR	TRIM-SET-L12-D01
NF-LCF12-D01	CONN NF LCF12-50 J+L OP OR	TRIM-SET-L12-D01
43M-LCF12-D01	CONN 43M LCF12-50 J+L OP OR	TRIM-SET-L12-D01
43F-LCF12-D01	CONN 43F LCF12-50 J+L OP OR	TRIM-SET-L12-D01
NM-LCF12-C03	CONN NM LCF12-50 OS OR	TRIM-SET-L12-C02
NF-LCF12-C03	CONN NF LCF12-50 OS OR	TRIM-SET-L12-C02
43M-LCF12-C03	CONN 43M LCF12-50 OS OR	TRIM-SET-L12-C02
43F-LCF12-C03	CONN 43F LCF12-50 OS OR	TRIM-SET-L12-C02
NM-LCF12-CP01	COMP NM CONN FOR LCF, ICA, RCF & RCA12	TRIM-L12-AFBXD05-2
NF-LCF12-CP01	COMP NF CONN FOR LCF, ICA, RCF & RCA12	TRIM-L12-AFBXD05-2

AVAILABLE ACCESSORIES

- PlenumS-CONN-DB75IC: Steel Saddle Connector to connect PlenumShield™ to JBOX.
- PlenumS-OHSTRAP-75: 3/4" One Hole Strap.
- PlenumS-CUTT-170-WW: Cutting Tool.



SCF14-50JPL* PLENUM-RATED SUPERFLEX CABLES

Our plenum-rated SCF14 foam cables, tested up to 20.4 GHz, deliver outstanding electrical performance and support all wireless in-building applications. These foam coaxial cables meet the most stringent plenum cable standards, CMP, ETL listed to UL444, and also comply with Canadian CSA C.22.2/FT6 standard, with low flame-spread and low-smoke characteristics. With this combination of features, RFS Technologies' plenum-rated foam SCF14 cables are ideal for use within the ceiling area defined as the "environmental air handling space," as well as for more traditional plenum applications where it requires plenum rated Jumpers.

IMPROVE IN-BUILDING WIRELESS NETWORK PERFORMANCE

RFS Technologies plenum-rated cables provide low attenuation and excellent return loss.

They also feature robust construction that reduces the risk of performance issues:

FREQUENCY RANGE (MHz)	RETURN LOSS (dB)	VSWR	FREQUENCY (MHz)	dB per 100m	dB per 100ft	Power, kW
450-617	20	1.22	0.5	.40	.12	5.50
617-960	24	1.13	150	7.17	2.19	0.92
1695-2200	24	1.13	800	17.30	5.27	0.38
2300-2700	20	1.22	900	18.40	5.61	0.36
3500-4200	18	1.28	1800	26.90	8.20	0.25
5150-6000	16	1.37	3500	39.10	11.90	0.17
			6000	53.40	16.30	0.12
			10000	72.60	22.10	0.09
			20400	113	34.60	0.06

DESIGNED TO SUPPORT MULTI-BAND IN BUILDING SYSTEMS

RFS Technologies plenum-rated cables provide low attenuation and excellent return loss.

They also feature robust construction that reduces the risk of performance issues:

- A continuous, foam dielectric provides complete support for the inner conductor to eliminate electrical and mechanical problems in tight bending areas.
- The solid outer conductor creates a continuous RFI/EMI shield that minimizes system interference.

Plenum-Rated Cables

SIZE	MODEL NUMBER	JACKET COLOR	CABLE WEIGHT kg/m (lb/ft)	OUTER CONDUCTOR MATERIAL
1/4"	SCF14-50JPLB	Black	0.07 (0.05)	Corrugated Copper

*different jacket colors available

Plenum-Rated Jumper Cables

We offer models with white jackets, 1/4" diameter cable, of varying lengths in m (ft) increments.

SIZE	MODEL NUMBER	CHARACTERISTIC	CONNECTOR A	CONNECTOR B	LENGTH m (ft)
1/4"	43M43MS14P-030FFP	Blue, PVC	4.3-10 Male	4.3-10 Male	0.91 (3)
1/4"	43M7MS14P-030FFP	Blue, PVC	4.3-10 Male	7-16 Male	0.91 (3)
1/4"	43MNMS14P-030FFP	Blue, PVC	4.3-10 Male	N Type Male	0.91 (3)
1/4"	7M7MS14P-030FFP	Blue, PVC	7-16 Male	7-16 Male	0.91 (3)
1/4"	7MNMS14P-030FFP	Blue, PVC	7-16 Male	N Type Male	0.91 (3)
1/4"	NMNMS14P-030FFP	Blue, PVC	N Type Male	N Type Male	0.91 (3)

HCA78-50JPL* AIR DIELECTRIC PLENUM-RATED CABLES

Air Dielectric cable is designed to support multiple RF signals and provides complete shielding due to its solid outer conductor, which creates a continuous RFI/EMI shield that minimizes system interference. The cable boasts outstanding intermodulation performance, with its solid inner and outer conductors virtually eliminating intermods, and this performance is confirmed with state-of-the-art equipment at the RFS factory. Additionally, Air Dielectric cable is versatile and can be used in a wide range of applications, including feed lines for plenum space installations within occupied buildings or structures.

DESIGNED TO SUPPORT MULTI-BAND IN BUILDING SYSTEMS

RFS Technologies plenum-rated cables provide low attenuation and excellent return loss.

They also feature robust construction that reduces the risk of performance issues:

- A continuous, spiral dielectric provides complete support for the inner conductor to eliminate electrical and mechanical problems in tight bending areas.
- The solid outer conductor creates a continuous RFI/EMI shield that minimizes system interference.

FREQUENCY RANGE (MHz)	RETURN LOSS (dB)	VSWR	FREQUENCY (MHz)	dB per 100m	dB per 100ft	Power, kW
698-798	21	(1.195)	0.5	0.08	0.03	73
824-960	21	(1.195)	30	0.64	0.19	15.70
1695-1780	21	(1.195)	300	2.08	0.63	4.84
1850-2020	21	(1.195)	800	3.49	1.07	2.91
2305-2320	21	(1.195)	900	3.72	1.13	2.74
2345-2360	21	(1.195)	1800	5.43	1.65	1.91
2496-2700	21	(1.195)	3550	8.33	2.54	1.35
27000-3000	18	(1.288)	3980	8.89	2.71	1.27
3550-3770	15	(1.432)	4200	9.17	2.79	1.24
3700-3900	13	(1.576)				
3980-4200	11	(1.784)				

Plenum-Rated Cables

SIZE	MODEL NUMBER	JACKET COLOR	CABLE WEIGHT kg/m (lb/ft)	OUTER CONDUCTOR MATERIAL
7/8"	HCA78-50JPL	Blue	0.07 (0.05)	Corrugated Copper
7/8"	HCA78-50JPLW	White	0.07 (0.05)	Corrugated Copper

*different jacket colors available



IT TAKES A DRAGON TO TAME A BEAST.

When fire rages, and water rushes in, only DragonSkin stands firm. Engineered to meet NFPA 72 Survivability standards, DragonSkin safeguards mission-critical communications, ensuring they prevail against the fiercest threats. As the first-ever 2-hour fire-rated circuit integrity cable, it's built to outlast "the beast" within any building.

DragonSkin's unique flexibility makes installation a breeze, even in retrofit projects. It slithers through tight spaces with ease, saving time and reducing costs. This groundbreaking solution is exactly what you expect from RFS Technologies, an Amphenol Company – a pioneer in industry firsts that set new standards and remain the best in class.

Why DragonSkin Stands Out:

- **Unmatched Fire Resistance:** The ultimate coax cable that delivers RF signals even after enduring a 2-hour burn and sudden water exposure, all without needing a metal conduit, extensive wrapping, or a fire-resistant enclosure.
- **UL 2196 Certified & NFPA 72 Compliant:** Proven to meet the highest safety standards.
- **Effortless Installation:** Installs like any regular cable, with a 0.54-inch diameter and an 8-inch bending radius, lightweight design, and compatibility with standard RFS connectors.

DragonSkin isn't just a cable; it's peace of mind in the face of danger.

KEEP COMMUNICATIONS ALIVE TO SAVE LIVES.



Learn more at DragonSkinCable.com

GET HIGH-PERFORMANCE JUMPER CABLES FOR ANY APPLICATION, ANY SIZE

RFS Technologies, inc. is a global leader in RF jumper cables and offers a complete portfolio of jumper cables that meet any requirements.

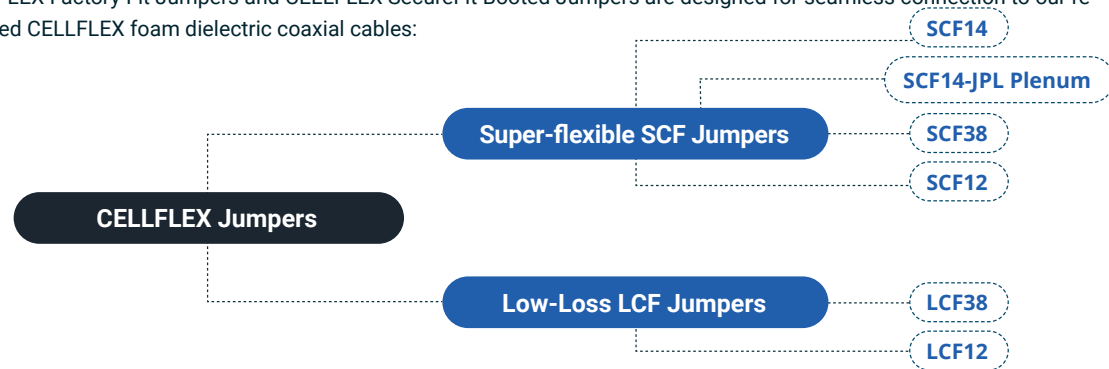
CELLFLEX Factory-Fit Jumpers are ideal for indoor environments and other locations where jumper connectors do not require weatherproofing.

CELLFLEX SecureFit Booted Jumpers are ideal for outdoor environments and other locations where jumper connectors need to be protected from the elements.

All of our **CELLFLEX jumper cables support frequencies up to 6 GHz to simplify your network evolution and protect your investment.**

CHOOSE FROM SUPER-FLEXIBLE AND LOW-LOSS JUMPER CABLES

CELLFLEX Factory-Fit Jumpers and CELLFLEX SecureFit Booted Jumpers are designed for seamless connection to our renowned CELLFLEX foam dielectric coaxial cables:



CELLFLEX super-flexible jumper cables combine outstanding bending characteristics and electrical performance to improve quality and efficiency in the most challenging deployment scenarios.

CELLFLEX low-loss jumper cables deliver extremely low attenuation that increases the efficiency of signal transfers in any RF system.

INCREASE FIRE-RESISTANCE

All CELLFLEX jumpers can be delivered with a flame-retardant "JFN" jacket type that meets the stringent fire safety requirements in European standard EN 50575. These flame-retardant jumpers meet the legal and regulatory requirements for fire safety in the European Construction Product Regulation (CPR) 305/2017 and other major fire safety standards.

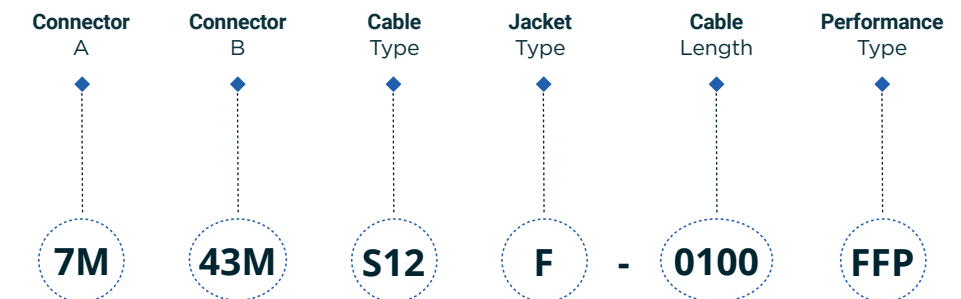
CONNECTIONS IN THE FIELD JUST GOT EASIER

Our new coaxial adapter series provides a fast, easy and cost-effective solution for jumper connections. With a large selection of both straight and right angle adapters, there is a model for every network requirement. Passive intermodulation specifications for all RFS adapters is < -163 dBc.



UNDERSTANDING JUMPER NAMES

RFS Technologies, inc. offers models with outdoor-rated jacket types, of varying lengths in m (ft) increments.



7M & 43M CONNECTORS A & B

7M	7-16 Male
7F	7-16 Female
7MR	7-16 Male Right Angle
43M	4.3-10 Male
43F	4.3-10 Female
43MH	4.3-10 Male Hand-screw
43MP	4.3-10 Male Push Pull
43MR	4.3-10 Male Right Angle
NM	N-Type Male
NF	N-Type Female
NMR	N-Type Male Right Angle
NXM	NEX10 Male
NXMP	NEX10 Male Push Pull
7MB	7-16 Male with Weatherboots
43MB	4.3-10 Male with Weatherboots
NMB	N-Type Male with Weatherboots

S12 CABLE TYPE

L38	3/8" Low Loss Coax
L12	1/2" Low Loss Coax
S14	1/4" Superflexible Coax
S38	3/8" Superflexible Coax
S12	1/2" Superflexible Coax

F JACKET TYPE

F	JFN Flame Retardant
P	Plenum Rated
Blank	Outdoor Use

0100 CABLE LENGTH*

0100	1 meter
0200	2 meter
0250	2.5 meter
1000	10 meter
1500	15 meter
030	3 feet
060	6 feet
100	10 feet
150	15 feet
200	20 feet

FFP JUMPER PERFORMANCE

FFP	Factory-Fit Premium
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NOTES:
* 4 digits indicate meter length, 3 digits indicate feet length
Others lengths available on request

PASSIVE COMPONENTS UP TO 6 GHz

RFS Technologies, Inc. provides a complete family of passive components that operate in all frequency bands from 555 MHz to 6 GHz:

- **Combiners** that support one service per frequency band, multiple services per band, and multi-band applications. We also offer standardized combiner modules in 19-inch racks.
- **Hybrid combiners and couplers** that combine multiple signals in the same wireless band onto a common feeder cable.
- **Directional couplers** and tappers that uniformly distribute RF signals.
- **Diplexers and triplexers** that combine and separate signals in different wireless bands.
- **Power splitters** that evenly split input signals with minimal reflections or loss.
- **Loads** that terminate all types of open RF ports.
- **Attenuators** that adapt RF power levels to meet different system requirements.



All RFS Technologies, inc. passive components provide optimal PIM performance to reduce interference and support the highest possible throughput levels end-to-end.

SUPPORT MULTI-OPERATOR REQUIREMENTS ANYWHERE IN THE WORLD

Our passive components are the perfect complement to our CELLFLEX® coax cables, RADIAFLEX® radiating cables, and indoor antennas, which also operate in all frequency bands up to 6 GHz.

Together, our passive DAS solution components provide complete flexibility to support 5G and deliver broadband multi-operator, multi-technology services using a single DAS, anywhere in the world.

Directional Couplers

COUPLING VALUE, dB	INSERTION LOSS VALUE	PIM dBc	IP	CONNECTOR TYPE	MODEL NUMBER			
<i>Directional Couplers 555-6000MHz</i>								
5	2.45	160	IP66	N Female	CDS5E-555/6000			
6	1.9				CDS6E-555/6000			
8	1.25				CDS8E-555/6000			
10	0.8				CDS10E-555/6000			
13	0.6				CDS13E-555/6000			
15	0.5				CDS15E-555/6000			
20	0.3				CDS20E-555/6000			
30	0.3				CDS30E-555/6000			
5	2.45				163	IP66	4.3-10 Female	CDS5-43-555/6000
6	1.9							CDS6-43-555/6000
8	1.25	CDS8-43-555/6000						
10	0.8	CDS10-43-555/6000						
13	0.6	CDS13-43-555/6000						
15	0.5	CDS15-43E-555/6000						
20	0.3	CDS20-43-555/6000						
30	0.3	CDS30-43-555/6000						
<i>Directional Couplers 694-3800MHz</i>								
6	1.7	155	IP65	N Female				CDS6E-694/3800
10	0.7				CDS10E-694/3800			
15	0.4				CDS15E-694/3800			
20	0.2				CDS20E-694/3800			
30	0.2				CDS30E-694/3800			
6	1.7	160	IP65	7-16 Female	CDS6DE-694/3800			
10	0.7				CDS10DE-694/3800			
15	0.4				CDS15DE-694/3800			
20	0.2				CDS20DE-694/3800			
30	0.2				CDS30DE-694/3800			
6	1.7	160	IP65	4.3-10 Female	CDS6-43-694/3800			
10	0.7				CDS10-43-694/3800			
15	0.4				CDS15-43-694/3800			
20	0.2				CDS20-43-694/3800			
30	0.2				CDS30-43-694/3800			
<i>Directional Couplers 350-2700MHz</i>								
6	1.8	160	IP65	N Female	CDS6E-350/2700-01			
10	0.8				CDS10E-350/2700-01			
15	0.5				CDS15E-350/2700-01			
20	0.25				CDS20E-350/2700-01			
30	0.3				CDS30E-350/2700-01			
6	1.8			160	IP65	7-16 Female	CDS6DE-350/2700-01	
10	0.8						CDS10DE-350/2700-01	
15	0.5						CDS15DE-350/2700-01	
20	0.25						CDS20DE-350/2700-01	
30	0.3						CDS30DE-350/2700-01	
6	1.8	160	IP65	4.3-10 Female	CDS6-43-350/2700-01			
10	0.8				CDS10-43-350/2700-01			
15	0.5				CDS15-43-350/2700-01			
20	0.25				CDS20-43-350/2700-01			
30	0.3				CDS30-43-350/2700-01			

Hybrid Combiners

COMBINER TYPE	COUPLING VALUE, dB	PIM dBc	IP	CONNECTOR TYPE	MODEL NUMBER
Hybrid Combiners 555-6000MHz					
2*2 Hybrid Combiner	3.1 ±0.9	160	IP66	N Female	CDSE2x2-555/6000
4*4 Hybrid Combiner	6.0 ±2.5				CDSE4x4-555/6000
2*2 Hybrid Combiner	3.1 ±0.9	163		4.3-10 Female	CDS2x2-43-555/6000
4*4 Hybrid Combiner	6.0 ±2.5				CDS4x4-43-555/6000
Hybrid Combiners 694-3800MHz					
2*2 Hybrid Combiner	3.1 ±0.5	155	IP65	N Female	CDSE2x2-694/3800
4*4 Hybrid Combiner	6.0 ±1.2				CDSE4x4-694/3800
2*2 Hybrid Combiner	3.1 ±0.5	160		7-16 Female	CDSDE2x2-694/3800
4*4 Hybrid Combiner	6.0 ±1.2				CDSDE4x4-694/3800
2*2 Hybrid Combiner	3.1 ±0.5	160	4.3-10 Female	CDS2x2-43-694/3800	
4*4 Hybrid Combiner	6.0 ±1.2			CDS4x4-43-694/3800	
Hybrid Combiners 350-2700MHz					
3dB Directional Hybrid Coupler	3.1±1.4@350-380MHz	160	IP65	N Female	CDSE2x2-350/2700-01
3dB Directional Hybrid Coupler	3.1±0.9@380-2700MHz	160		4.3-10 Female	CDS2x2-43-350/2700-01

Power Splitters

SPLITTER TYPE	SPLIT LOSS VALUE dB	PIM dBc	IP	CONNECTOR TYPE	MODEL NUMBER
Splitters 555-6000MHz					
2-way power splitter	≤3.0	160	IP66	N Female	PDS2E-555/6000
3-way power splitter	≤4.8				PDS3E-555/6000
4-way power splitter	≤6.0				PDS4E-555/6000
2-way power splitter	≤3.0	163		4.3-10 Female	PDS2-43-555/6000
3-way power splitter	≤4.8		PDS3-43-555/6000		
4-way power splitter	≤6.0		PDS4-43-555/6000		
Splitters Combiners 694-3800MHz					
2-way power splitter	≤3.3	155	IP65	N Female	PDS2E-694/3800
3-way power splitter	≤5.1				PDS3E-694/3800
4-way power splitter	≤6.4				PDS4E-694/3800
6-way power splitter	≤8.6	PDS6E-694/3800			
2-way power splitter	≤3.3	160	7-16 Female	PDS2DE-694/3800	
3-way power splitter	≤5.1			PDS3DE-694/3800	
4-way power splitter	≤6.4			PDS4DE-694/3800	
2-way power splitter	≤3.3	160	4.3-10 Female	PDS2-43-694/3800	
3-way power splitter	≤5.1			PDS3-43-694/3800	
4-way power splitter	≤6.4			PDS4-43-694/3800	
6-way power splitter	≤8.6	PDS6-43-694/3800			
Splitters 350-2700MHz					
2-way power splitter	≤3.4	160	IP65	N Female	PDS2E-350/2700-01
3-way power splitter	≤5.2				PDS3E-350/2700-01
4-way power splitter	≤6.5				PDS4E-350/2700-01
2-way power splitter	≤3.4	7-16 Female		PDS2DE-350/2700-01	
3-way power splitter	≤5.2		PDS3DE-350/2700-01		
4-way power splitter	≤6.5		PDS4DE-350/2700-01		
2-way power splitter	≤3.4	4.3-10 Female	PDS2-43-350/2700-01		
3-way power splitter	≤5.2		PDS3-43-350/2700-01		
4-way power splitter	≤6.5		PDS4-43-350/2700-01		

Dummy Loads

POWER HANDLING, W	IP	CONNECTOR TYPE	MODEL NUMBER
Dummy Loads DC-6000MHz			
2	IP65	N Male	TER-E-6000-2W
5			TER-E-6000-5W
10			TER-E-6000-10W
20			TER-E-6000-20W
50			TER-E-6000-50W
100		TER-E-6000-100W	
200		TER-E-6000-200W	
2		4.3-10 Female	TER-43-6000-2W
5			TER-43-6000-5W
10			TER-43-6000-10W
20	TER-43-6000-20W		
50	TER-43-6000-50W		
100	TER-43-6000-100W		
200	TER-43-6000-200W		

Dummy Loads DC-3800MHz			
2	Indoor	N Male	TER-E-3800-2W
5			TER-E-3800-5W
10			TER-E-3800-10W
20			TER-E-3800-20W
30			TER-E-3800-30W
50		TER-E-3800-50W	
100		TER-E-3800-100W	
5		7-16 Female	TER-DE-3800-5W
10			TER-DE-3800-10W
20			TER-DE-3800-20W
30	TER-DE-3800-30W		
50	TER-DE-3800-50W		
2	4.3-10 Female	TER-43-3800-2W	
5		TER-43-3800-5W	
10		TER-43-3800-10W	
20		TER-43-3800-20W	
30		TER-43-3800-30W	
50		TER-43-3800-50W	
100		TER-43-3800-100W	

Tappers

COUPLING VALUE, dB	INSERTION LOSS VALUE	PIM dBc	IP	CONNECTOR TYPE	MODEL NUMBER			
Tappers 350-6000MHz								
3 / 2:1	1.8dB@0.35-0.96GHz 2.1dB@1.695-2.7GHz 2dB@3.5-4.5 & 4.9-6GHz	160	IP66	N Female	TPS3E-350/6000			
5 / 3:1	1.65				TPS5E-350/6000			
6 / 4:1	1.5				TPS6E-350/6000			
8 / 6:1	1.15				TPS8E-350/6000			
10 / 10:1	0.75				TPS10E-350/6000			
13 / 20:1	0.65				TPS13E-350/6000			
15 / 30:1	0.4				TPS15E-350/6000			
20 / 100:1	0.2dB@0.35-0.96 & 1.695-2.7GHz 0.3dB@3.5-4.5 & 4.9-6GHz				TPS20E-350/6000			
30 / 1000:1	0.2				TPS30E-350/6000			
3 / 2:1	1.8dB@0.35-0.96GHz 2.1dB@1.695-2.7GHz 2dB@3.5-4.5 & 4.9-6GHz				163	IP66	4.3-10 Female	TPS3-43-350/6000
5 / 3:1	1.65							TPS5-43-350/6000
6 / 4:1	1.5							TPS6-43-350/6000
8 / 6:1	1.15							TPS8-43-350/6000
10 / 10:1	0.75							TPS10-43-350/6000
13 / 20:1	0.65							TPS13-43-350/6000
15 / 30:1	0.4	TPS15-43-350/6000						
20 / 100:1	0.2dB@0.35-0.96 & 1.695-2.7GHz 0.3dB@3.5-4.5 & 4.9-6GHz	TPS20-43-350/6000						
30 / 1000:1	0.2	TPS30-43-350/6000						

Tappers 694-3800MHz								
5 / 3:1	1.3	155	IP65	N Female	TPS5E-694/3800			
6 / 4:1	1.1				TPS6E-694/3800			
8 / 6:1	0.8				TPS8E-694/3800			
10 / 10:1	0.5				TPS10E-694/3800			
13 / 20:1	0.3				TPS13E-694/3800			
15 / 30:1	0.2				TPS15E-694/3800			
20 / 100:1	0.2				TPS20E-694/3800			
30 / 1000:1	0.2				TPS30E-694/3800			
5 / 3:1	1.3				160	IP65	7-16 Female	TPS5DE-694/3800
6 / 4:1	1.1							TPS6DE-694/3800
8 / 6:1	0.8							TPS8DE-694/3800
10 / 10:1	0.5							TPS10DE-694/3800
13 / 20:1	0.3							TPS13DE-694/3800
15 / 30:1	0.2							TPS15DE-694/3800
20 / 100:1	0.2							TPS20DE-694/3800
30 / 1000:1	0.2	TPS30DE-694/3800						
5 / 3:1	1.3	160	IP65	4.3-10 Female				TPS5-43-694/3800
6 / 4:1	1.1							TPS6-43-694/3800
8 / 6:1	0.8							TPS8-43-694/3800
10 / 10:1	0.5							TPS10-43-694/3800
13 / 20:1	0.3							TPS13-43-694/3800
15 / 30:1	0.2							TPS15-43-694/3800
20 / 100:1	0.2							TPS20-43-694/3800
30 / 1000:1	0.2				TPS30-43-694/3800			

Tappers

COUPLING VALUE, dB	INSERTION LOSS VALUE	PIM dBc	IP	CONNECTOR TYPE	MODEL NUMBER				
Tappers 350-2700MHz									
5 / 3:1	1.4	155	?	N Female	TPS5E-350/2700-01				
6 / 4:1	1				TPS6E-350/2700-01				
8 / 6:1	0.8				TPS8E-350/2700-01				
10 / 10:1	0.4				TPS10E-350/2700-01				
13 / 20:1	0.3				TPS13E-350/2700-01				
15 / 30:1	0.3				TPS15E-350/2700-01				
5 / 3:1	1.4			160	?	7-16 Female	TPS5DE-350/2700-01		
6 / 4:1	1						TPS6DE-350/2700-01		
8 / 6:1	0.8						TPS8DE-350/2700-01		
10 / 10:1	0.4						TPS10DE-350/2700-01		
13 / 20:1	0.3						TPS13DE-350/2700-01		
15 / 30:1	0.3						TPS15DE-350/2700-01		
5 / 3:1	1.4					160	?	4.3-10 Female	TPS5-43-350/2700-01
6 / 4:1	1.1								TPS6-43-350/2700-01
8 / 6:1	0.8								TPS8-43-350/2700-01
10 / 10:1	0.5	TPS10-43-350/2700-01							
13 / 20:1	0.3	TPS13-43-350/2700-01							
15 / 30:1	0.3	TPS15-43-350/2700-01							
20 / 100:1	0.2	TPS20-43-350/2700-01							
30 / 1000:1	0.2	TPS30-43-350/2700-01							

Low PIM Cable Loads

POWER HANDLING, W	PIM dBc	IP	CONNECTOR TYPE	MODEL NUMBER			
Cable Loads DC-6000MHz							
2	160	IP65	N Male	TERP-E-6000-2W			
5				TERP-E-6000-5W			
10				TERP-E-6000-10W			
20				TERP-E-6000-20W			
50				TERP-E-6000-50W			
100				TERP-E-6000-100W			
200				TERP-E-6000-200W			
2				163	IP65	4.3-10 Male	TERP-43-6000-2W
5							TERP-43-6000-5W
10							TERP-43-6000-10W
20	TERP-43-6000-20W						
50	TERP-43-6000-50W						
100	TERP-43-6000-100W						
200	TERP-43-6000-200W						
Cable Loads DC-3800MHz							
5	155	Indoor	N Female				TERP-E-3800-5W
50							TERP-E-3800-50W
100				TERP-E-3800-100W			
50	160	Indoor	7-16 Female	TERP-DE-3800-50W			
100				TERP-DE-3800-100W			
50				4.3-10 Female	TERP-43-3800-50W		
100			TERP-43-3800-100W				

