



# RADIO FREQUENCY SYSTEMS

## RF JUMPER CABLES SELECTION GUIDE

Edition 2 / 9.2022



## RADIO FREQUENCY SYSTEMS

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## RELY ON THE WORLD LEADER IN RF JUMPER CABLES



Radio frequency (RF) jumper cables play an important role in end-to-end transmission line solutions. However, if even the smallest aspect of jumper cable quality or performance is substandard, these essential cables can quickly degrade transmissions.

Our RF jumper cables work seamlessly within end-to-end transmission line solutions to maintain transmission quality and performance in any deployment scenario. Every jumper cable in our comprehensive portfolio is engineered from the ground-up to:

- Minimize interference and maximize throughput
- Withstand harsh conditions for many years
- Enable fast, easy and cost-effective installation — with or without weatherproofing boots
- Support all network frequencies, technologies and applications with very low losses

#### FIELD-PROVEN MILLIONS OF TIMES OVER

RFS jumper cables are renowned in the industry for their high-quality construction and superior electrical performance. They have been trusted by leading original equipment manufacturers (OEMs) and telecom operators around the world for decades.

Since 2000, we've sold more than 30 million jumper cables globally, and we continue to sell millions of jumper cables every year. We have close to 40% market share for jumper cables in Europe overall, and more than 50% market share in some countries.

#### UNCONDITIONALLY 5G-READY TO FUTUREPROOF YOUR INVESTMENT

Our proven ability to anticipate our customers' needs and enable their next phases of evolution is one of the key reasons our jumper cables are so widely deployed. Our customers know we've been setting the world standard in communications cables since 1900, and we will continue to go above and beyond the efforts of other vendors to meet their needs.

Today, our jumper cables are part of the industry's only 5G-ready portfolio of end-to-end transmission line solutions. They are ideal to take advantage of emerging spectrum and evolve to 5G anywhere in the world — no matter which stage of evolution you are in today.



#### DON'T COMPROMISE: GET THE ULTIMATE IN RF JUMPER CABLES

As networks evolve to 5G and beyond, transmission speed, quality and efficiency will be essential to differentiate. Don't compromise your end-to-end transmissions with inferior jumper cables. Rely on RFS.

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

RFS 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.

### MIX AND MATCH JUMPER CABLE CONFIGURATIONS AND FEATURES TO MEET APPLICATION AND SITE REQUIREMENTS

We offer a variety of features and configuration options for each jumper cable type and size. Options include:

- Jacket type: Standard or flame-retardant
- Connector type for each endpoint: NEX10, 4.3-10, N-Type or 7-16 DIN right-angled or straight connectors
- Performance: UltraPIM or Premium PIM
- Length: 1 m to 20 m or 3 ft to 50 ft

We manufacture and stock the most popular combinations and can deliver custom lengths when required.

### SIMPLIFY 4G, 5G AND SMALL CELL DEPLOYMENTS IN CROWDED URBAN ENVIRONMENTS

As you upgrade and add network technologies to already-crowded sites, the ability to make more coaxial cable connections in smaller spaces is crucial.

CELLFLEX super-flexible 1/4-inch jumpers with miniaturized NEX10 and 4.3-10 connectors make urban installations faster and easier. They're ideal for installations in highly constrained spaces, such as street poles, and for short-distance connections. To ensure optimal attenuation over longer distances, rely on our low-loss 1/2-inch jumper cables.



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

### MAINTAIN ULTRA-HIGH PERFORMANCE END-TO-END

You can't afford to compromise on performance. Jumper cables that provide the ultimate in electrical performance are essential to guarantee end-to-end transmission line performance and support the next generations of applications.

CELLFLEX jumper cables feature our industry-leading UltraPIM performance, and we guarantee the performance specifications for every jumper cable.

All of our jumpers are fully tested for PIM, VSWR (return loss) and interface performance. Test results are available online for products sold globally.

### GET MORE VALUE FROM EXISTING EQUIPMENT

We understand your need to extract maximum value from the investments you've already made in network equipment.

While some jumper cable vendors are discontinuing older connector types, such as N-Type and 7-16 DIN, we continue to offer the interfaces.

### BRING US YOUR TOUGHEST DEPLOYMENT CHALLENGES

We have the expertise and experience needed to adapt our jumper designs and deliver innovative, custom jumper cables that are designed to meet your unique requirements and resolve the most difficult installation challenges.

One of our recent innovations includes jumper cables with shortened, molded boots that fit within the available space on a specific outdoor small cell radio while still allowing a plastic cover to close over the end of the jumper.

### SUPPORT DEPLOYMENTS ANYWHERE IN THE WORLD

We understand your need to extract maximum value from the investments you've already made in network equipment. While some jumper cable vendors are discontinuing older connector types, such as N-Type and 7-16 DIN, we continue to offer the interfaces.



## CLUSTER CONNECTORS

### Make More Jumper Connections in Less Space

Our innovative new jumper cables with RF cluster connectors are ideal for connecting to highly integrated antennas that have a large number of RF ports in a very compact footprint.

Each cluster connector supports connections to multiple RF ports to enable

connections to more than 20 multiband 4T4R and 8T8R ports within the space of a typical antenna end cap.

Simplify your next deployment using cluster jumpers with MQ4/MQ5 connectors or M-LOC systems.

[Learn more on page 13](#)



## PROTECT CRITICAL CONNECTIONS WITH THE **ULTIMATE WEATHERPROOFING BOOT**

RFS CELLFLEX SecureFit Booted Jumpers feature specially designed, injection-molded weatherproof boots that protect jumper connections from all forms of moisture — from rain to snow and ice — as well as salt, sand, dust and other contaminants that can corrode connectors, degrade connection quality and reduce connector lifespan.



**CELLFLEX SecureFit Booted Jumpers** are available in all RFS jumper cable sizes, for all RFS-supported connector types and in all RFS jumper configurations. The boot's sleek, close-fitting design results in a small footprint that's ideal to protect any connection, including connections to multi-port equipment with tight connector spacing.

### UPGRADE TO FASTER, EASIER WEATHERPROOFING WITH CELLFLEX SECUREFIT BOOTED JUMPERS

With CELLFLEX SecureFit Booted Jumpers, you can quickly and easily add an additional level of sealing and strain relief to any connection with no need for installers to waste time and effort applying and removing sealing tape.

Installers can connect and disconnect our SecureFit Booted Jumpers far faster and easier than they can when sealing tape is used to protect connections. And no waste is generated, so installers never have to worry about garbage removal or clutter while they're working high on towers. There's also no that risk that jumper cables can be damaged or installers injured as is the case when a knife is used to remove sealing tape from connections.

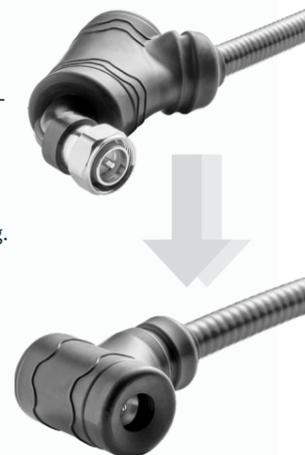
### ENSURE CONSISTENT AND RELIABLE WEATHERPROOFING ON ALL CONNECTIONS

The SecureFit boot design is the same no matter which connector type you're using or which equipment you're connecting to.

The ergonomic boot design allows installers to use a single hand to easily slide the boot into place over the connection and to remove the boot when needed. Installers quickly master the technique and can apply consistent and reliable weatherproofing across all connections with minimal training.

The lead time for CELLFLEX SecureFit Booted Jumpers is the same as our CELLFLEX Factory-Fit Jumpers, so there are no delays when booted jumpers are required.

*Protect your network investment and maintain premium performance with a reliable and exceptionally easy weatherproofing solution from RFS*



## TESTIMONIAL AND VIDEO SPOTLIGHT

See a timed CELLFLEX SecureFit Booted Jumper installation

Watch Luerik Silva, an installer in Brazil, install one of our CELLFLEX SecureFit Booted Jumpers in just 21 seconds. In contrast, it took Leurik more than two minutes to remove just one of the previous jumpers that was protected with sealing tape. The removal also generated considerable waste.

“ I was really satisfied with the installation and the performance of the booted jumpers. Everything is faster and more agile, and that's why I highly recommend it. I hope to have the same experience in my next field installations.”

– Leurik Silva, Solutions Installer

[Watch the Compelling Video](#) | [Read the Technical Paper](#)

## RFS ANSWERS THE INDUSTRY'S CONCERNS:

### PRODUCT DURABILITY

*Materials could break or tear during the installation process*

RFS offers:

- High strength material to prevent ripping or tearing during installation or product placement
- Rigorously tested for stretch and deformation characteristics
- Silicone rubber with good thermal qualities

### PURCHASE VALUE

*Cost-effective, quick-turn, reliable solution unavailable in the market*

RFS offers:

- Highly resistant to environmental degradation: IP66/67/68, UV, temperature cycles
- No additional lead time for RFS versus standard jumper production
- No additional equipment is required

### DESIGN STANDARDS

*Today's networks require future-proof, easy-to-install solutions*

RFS offers:

- Small footprint and compact design for multi-port equipment
- Ability to install at hot and cold temperatures
- Universal design for all connectors and RRHs
- Seals on cable and maintains all IP under bending and temperature ranges

## PROTECT CRITICAL CONNECTIONS WITH THE ULTIMATE WEATHERPROOFING BOOT

### RELY ON OUR INNOVATIVE BOOT DESIGN AND ROBUST CONSTRUCTION TO PROTECT AGAINST THE HARSHTEST ENVIRONMENTAL CONDITIONS

Our patent-pending boot design includes a small drainage channel at the top of the boot to protect against water pooling and moisture ingress.

The injection-molded, high-strength silicone rubber boot is rigorously tested to ensure it:

- Provides waterproofing to IP 66/67/68 levels
- Does not stretch, deform or tear during installation or removal
- Does not degrade when exposed to ultraviolet light, extreme heat or extreme cold

The bottom of the weatherproofing boot seals to the jumper cable to maintain full IP-level waterproofing during bending and across all temperature ranges.

### UNINSTALL AND REINSTALL THE SAME WEATHERPROOFING BOOT OVER AND OVER AGAIN

Each CELLFLEX SecureFit weatherproofing boot can be installed and removed more than 25 times so you can perform tap testing and disconnect equipment with no worries about deforming the boot or degrading the effectiveness of the silicone rubber material.

## TESTIMONIAL AND VIDEO SPOTLIGHT

Check out our waterproofing in action

In this short video, we subject an RFS booted jumper to direct water spray then disconnect it to prove our weatherproof boot repels every drop of water to keep the jumper connection completely dry.

Take a minute to get a close-up view of just how easy it is to install and uninstall CELLFLEX SecureFit Booted Jumpers and witness their superior waterproofing features.

[Watch the Exciting Video Now](#)



## UNDERSTANDING MODEL NAMES

All RFS jumper model names are based on a naming structure that tells you:

Connector A	Connector B	Cable Type	Jacket Type	Cable Length	Performance Type
7M	43M	S12	F	0100	FFP
7M & 43M CONNECTORS A & B		S12 CABLE TYPE	F JACKET TYPE	0100 CABLE LENGTH*	FFP JUMPER PERFORMANCE
7M	7-16 Male	L38	F	0100	FFP
7F	7-16 Female	L12	Blank	0200	FFS
7MR	7-16 Male Right Angle	S14	PE	0250	UPM
43M	4.3-10 Male	S38		1000	
43F	4.3-10 Female	S12		1500	
43MR	4.3-10 Male Right Angle			030	
NM	N-Type Male			060	
NF	N-Type Female			100	
NMR	N-Type Male Right Angle			150	
NXM	NEX10 Male			200	
7MB	7-16 Male with Weatherboots				
7MRB	7-16 Male Right Angle with Weatherboots				
43MB	4.3-10 Male with Weatherboots				
43MRB	4.3-10 Male Right Angle with Weatherboots				
NMB	N-Type Male with Weatherboots				
NMRB	N-Type Male Right Angle with Weatherboots				
NXMB	NEX10 Male with Weatherboots				

NOTES:  
\* 4 digits indicate meter length, 3 digits indicate feet length  
Others lengths available on request



## THE ESSENTIAL OFFERING CHOOSING THE RIGHT COMBINATION

### Combination Examples

MODEL NAME	CONNECTOR 1	CONNECTOR 2	COMMENT
43M43MBS12-1000FFP	4.3-10 Male	4.3-10 Male + Boot	10 m SCF12 Jumper with PE jacket (J)
7MNMS12F-030FFP	7-16 Male	N Male	3 feet SCF12 Jumper with flame retardend jacket (JFN)
43MHNXMS14-0100FFP	4.3-10 Male Handscrew	NEX10 Male	1 m SCF14 Jumper with PE jacket (J)
7MB7MRL12-0500FFP	7-16 Male + Boot	7-16 Male Right Angle	5 m LCF12 Jumper with PE jacket (J)
NMB43ML12F-0200FFP	N Male + Boot	4.3-10 Male	2 m LCF12 Jumper with flame retardend jacket (JFN)
7F43FS38-0300FFP	7-16 Female	4.3-10 Female	3 m SCF38 Jumper with PE jacket (J)
43M43MRL38F-100FFP	4.3-10 Male	4.3-10 Male Right Angle	10 feet LCF38 Jumper flame with retardend jacket (JFN)
*****XXX-XXXXFFP	<b>Choice 1</b>	<b>Choice 2</b>	<b>Now it's your turn, choose a Jumper for your needs!</b>

### Interface Availability for RFS Cable Types

SUFFIX	INTERFACE	SCF14	SCF38	LCF38	SCF12	LCF12
43F	4.3/10 female	X	X		X	X
43M	4.3/10 male	X	X	X	X	X
43MR	4.3/10 male right-angle	X	X	X	X	X
7F	7-16 female	X	X		X	X
7M	7-16 male	X	X		X	X
7MR	7-16 male right-angle	X	X	X	X	X
NF	N female	X	X		X	X
NM	N male	X	X		X	X
NMR	N male right-angle	X	X		X	X
NXM	NEX10 Male	X	X		X	X



## GETTING THE PERFORMANCE YOU NEED ELECTRICAL SPECIFICATIONS

### PIM PERFORMANCE: THE KEY TO THE BEST NETWORK

All RFS Factory-Fit Premium jumpers (FFP) are manufactured with a typical PIM performance of approximately -161 dBc or better. FFP jumpers ensure a high quality standard of at least -159 dBc. Need a jumper with better or less PIM performance? No problem! Just ask us about Ultra PIM (UPM) or Factory-Fit Standard (FFS) jumpers.

### VSWR PERFORMANCE: 5G FOCUSED

All RFS Factory-Fit Premium jumpers (FFP) ensure long-term premium Voltage Standing Radio Wave Ratio (VSWR) performance. This helps to avoid difficult-to-detect, latent failures in the RF path that gradually degrade network quality over time. Operators save time and money, leading to reduced total cost of ownership (TCO).

FREQUENCY [MHz]	STRAIGHT/STRAIGHT [dB] (VSWR)	STRAIGHT/RIGHT ANGLE [dB] (VSWR)	RIGHT ANGLE/RIGHT ANGLE [dB] (VSWR)
<i>SCF12 and LCF12 Cable Types</i>			
10-1000	≥32 (≤1.052)	≥32 (≤1.052)	≥30 (≤1.065)
>1000-1700	≥30 (≤1.065)	≥30 (≤1.065)	≥30 (≤1.065)
>1700-2200	≥30 (≤1.065)	≥30 (≤1.065)	≥28 (≤1.083)
>2200-2700	≥28 (≤1.083)	≥28 (≤1.083)	≥26 (≤1.106)
>2700-3800	≥26 (≤1.106)	≥25 (≤1.119)	≥22 (≤1.173)
>3800-5925	≥22 (≤1.173)	≥21 (≤1.196)	≥18 (≤1.288)
<i>SCF14 and LCF14 Cable Types</i>			
10-1000	≥32 (≤1.052)	≥32 (≤1.052)	≥30 (≤1.065)
>1000-1700	≥30 (≤1.065)	≥30 (≤1.065)	≥30 (≤1.065)
>1700-2200	≥30 (≤1.065)	≥30 (≤1.065)	≥28 (≤1.083)
>2200-2700	≥28 (≤1.083)	≥28 (≤1.083)	≥26 (≤1.106)
>2700-3800	≥26 (≤1.106)	≥25 (≤1.119)	≥22 (≤1.173)
>3800-5925	≥24 (≤1.135)	≥22 (≤1.173)	≥19 (≤1.253)
<i>SCF38 and LCF38 Cable Types</i>			
10-1000	≥32 (≤1.052)	≥32 (≤1.052)	≥30 (≤1.065)
>1000-1700	≥30 (≤1.065)	≥30 (≤1.065)	≥28 (≤1.083)
>1700-2200	≥30 (≤1.065)	≥30 (≤1.065)	≥28 (≤1.083)
>2200-2700	≥28 (≤1.083)	≥28 (≤1.083)	≥26 (≤1.106)
>2700-3800	≥26 (≤1.106)	≥25 (≤1.119)	≥22 (≤1.173)
>3800-5925	≥24 (≤1.135)	≥22 (≤1.173)	≥19 (≤1.253)

## WE SET THE WORLD STANDARD IN COMMUNICATION CABLES

*At RFS, we've been pioneering breakthroughs in cable materials, construction and electrical performance since 1900. Our end-to-end cable solutions are 5G-ready. They feature world-leading fire protection. And they deliver the best electrical performance in the industry.*



## LEVERAGE OUR GLOBAL FOOTPRINT TO GET THE JUMPERS YOU NEED

We have the manufacturing capacity, global reach and relationships to be your local supplier wherever you are to keep network rollouts on schedule:

- Manufacturing and production facilities on four continents
- Dozens of sales and technical support offices around the world
- A vibrant, global network of distributors, systems integrators and value-added resellers who are ready to serve your needs

With our manufacturing facilities and scale, we have the flexibility to shift production to alternate locations should disaster strike. We can also stagger our manufacturing operations around the world and adapt logistics and transportation as situations evolve to ensure continuous solution delivery — no matter where you're located.



### DEPEND ON OUR RENOWNED DEDICATION TO MANUFACTURING EXCELLENCE

RFS products are well-known in the industry for their unparalleled quality and reliability. Our CELLFLEX jumper cables are no exception.

We take no shortcuts in any aspect of our manufacturing processes or operations. For example, our CELLFLEX Factory-Fit Jumpers feature:

- **Specially designed connectors** that are soldered-on in a strictly controlled industrial process to ensure industry-leading performance for today's high-performance wireless systems.
- **Injection-molded boots** that provide a reliable and repeatable additional level of sealing and strain relief.

We also follow a stringent, zero defect policy and implement industry-leading quality control measures in all of our manufacturing facilities to ensure only flawless products leave the building.

### DISCOVER OUR STATE-OF-THE-ART MANUFACTURING TECHNOLOGIES

Our smart factory in Suzhou, China, is a showcase for our global manufacturing expertise. We combine advanced systems and cutting-edge technologies with rigorous processes and in-depth testing to ensure the highest levels of product quality.

We are dedicated to remaining at the leading edge of manufacturing innovation and continue to adopt advanced automation and control systems.

## HANNOVER GERMANY



Take a look inside the RFS facility now!

### See our world-class production and testing

Our manufacturing facility in Hannover, Germany, is a prime example of our advanced jumper cable production and digital testing capabilities.

We've been making cables in Germany for more than 120 years. It all started in 1900 when German engineer, Louis Hackethal, created the first insulated wire and the

Hackethal-Hannover company was created.

Today, we make about 300 different types of jumpers and provide connectors for every cable and jumper we produce. Our custom cable assemblies in Hannover meet our customers' needs, no matter what they are.

### REDUCE RISKS WITH END-TO-END TRANSMISSION LINE SOLUTIONS

Sourcing and acquiring all of the components in an end-to-end transmission solution is time-consuming. It can also lead to unexpected compatibility issues during deployments and uneven quality and reliability levels across the end-to-end solution.

To eliminate these issues, our jumper cables are designed to work seamlessly within our comprehensive portfolio of reliable, high-quality transmission line solutions:

- Feeder cables, booted jumpers and connectors for antenna cabling
- Multiplexing solutions for small cell, macro and in-building applications
- Lightning protection solutions
- Radiating cables that enable the world's fastest MIMO solutions indoors
- Flexible waveguides for 5G and defense applications



MIMO Radiating Cables



Elliptical Waveguides



Multiplexing Solutions

## UNLIMITED CONNECTIONS WITH THE RFS ADAPTER SERIES

### CONNECTIONS IN THE FIELD JUST GOT EASIER

RFS' 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.



MODEL NUMBER (STRAIGHT)	MODEL NUMBER (RIGHT ANGLE)
716M-716F	716M-R-716F
716F-43F	716M-R-716M
716M-716M	43M-R-43F
716M-43M	NM-R-NM
716M-43F	NM-R-NF
716M-NM	716F-R-716F
716M-NF	716F-R-43M
43F-43F	716F-R-43F
43F-NM	716F-R-NM
43F-NF	716F-R-NF
43M-43M	716M-R-43M
43M-NM	716M-R-43F
43M-NF	716M-R-NM
NM-NM	716M-R-NF
NM-NF	43F-R-43F
NF-NF	43F-R-NM
716F-716F	43F-R-NF
716F-43M	43M-R-43M
716F-NM	43M-R-NM
716F-NF	43M-R-NF
43M-43F	NF-R-NF

NEW PRODUCT

## CONNECT TO YOUR 5G FUTURE CLUSTER JUMPERS

### DEPLOY CONNECTOR-DENSE ANTENNAS WITH EASE

Today, the mobile communications industry is increasingly relying on highly integrated antennas with large numbers of RF ports on very small antenna end caps. However, the tight spacing between ports makes it impossible to connect to all ports using standard jumper cables.



RFS 5G cluster jumpers resolve this issue. A single cluster jumper branches out to provide multiple extremely compact MQ4 or MQ5 connectors. As a result, it's easy to connect to more than 20 ports that support multiband 4T4R and 8T8R applications within the space constraints of a typical antenna cap.

### RFS 5G cluster jumper models

CONNECTOR A	CONNECTOR B	MODEL NUMBER
MQ4	NXM	MQ4NXMS14-0050M
MQ5	NXM	MQ5NXMS14-0050M
MQ4	43M	MQ443MS14-0050M
MQ5	43M	MQ543MS14-0050M
MQ4	7M	MQ47MS14-0050M
MQ5	7M	MQ57MS14-0050M
MQ4	NM	MQ4NMS14-0050M
MQ5	NM	MQ5NMS14-0050M
MQ4	43F	MQ443FS14-0050M
MQ5	43F	MQ543FS14-0050M
MQ4	7F	MQ47FS14-0050M
MQ5	7F	MQ57FS14-0050M
MQ4	NF	MQ4NFS14-0050M
MQ5	NF	MQ5NFS14-0050M

For maximum flexibility, we offer 5G MQ4 and MQ5 cluster jumpers in combination with a variety of connector options for the other end, including:

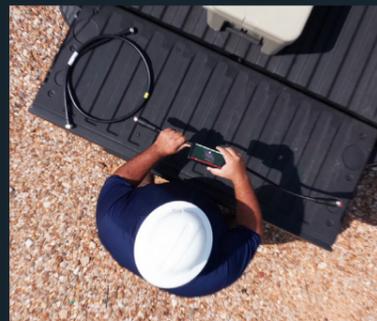
- 4.3-10 male or female
- N Type male or female
- 7-16 DIN male or female
- NEX10 male

RFS 5G cluster jumpers are available in:

- Standard polyethylene (PE) construction
- Halogen-free flame retardant (HFFR) construction

Contact us for information about additional cluster jumper models, including 5G M-LOC systems.

# PRODUCT TEST DATA TOOL

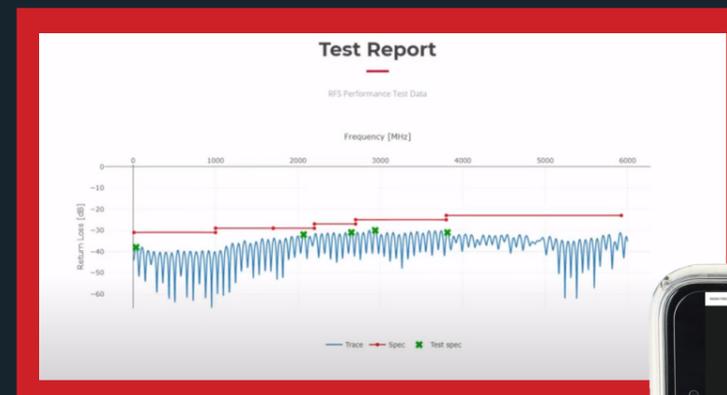


Fast and easy access to performance test data and product information:

- Streamline installation
- Save time and money
- Instantly verify project data wherever you are

Scan the RFS product code from any mobile device to:

- See performance test data, including PIM and VSWR details
- Review technical specs
- Read installation instructions



IN THE FIELD, ON THE GO  
GET THE INFORMATION YOU NEED,  
WHEN YOU NEED IT

[Learn More](#)

INSTANT PROJECT VERIFICATION:  
[performance.rfsworld.com](https://performance.rfsworld.com)





# RADIO FREQUENCY SYSTEMS



**TO SERVE YOU BETTER**  
Any questions comments or  
suggestions that would help  
us improve our products and  
services? **Scan this QR code!**