Connecting the Next Generation

RF INDUSTRIES CORPORATE PRESENTATION

2024

AGENDA

- About RF Industries

- RFI Passive Products
  - RF Assemblies
  - Fiber Assemblies
  - Copper DataCom Cables
  - Microlab Components

- Engineered Solutions
  - Mid-Pole Shrouds
  - Top-of-the-Pole TruField® Concealment
  - Small Cell Installation Kits
  - Direct Air Cooling (Thermal Solutions)

RF INDUSTRIES

RFI

Connecting the Next Generation

Our products connect today's networks with tomorrow's technology.

What We Do

RF Industries designs and manufactures a broad range of specialty interconnect products across diversified, growing markets including wireless/wireline telecom, data communications and industrial.

Our products include RF connectors, coaxial cables, data cables, wire harnesses, fiber optic cables, custom cabling, integrated small cell enclosures and energy-efficient cooling systems.

The Customer Experience

Our high-touch customer approach allows us to be responsive, accessible and hands-on when needed, every step of the way. Unlike large organizations, you will always be our number one priority. RFI's unique flexibility also gives us a competitive advantage.

As an agile business, we are able to identify and react to challenges quickly and easily, resulting in a smoother overall customer experience.

  www.rfindustries.com

344 employees

1979 established

3 strategic acquisitions

KEY FACTS | RF INDUSTRIES

9001 iso

RFIL nasdaq

2 centers of excellence

Gold corning

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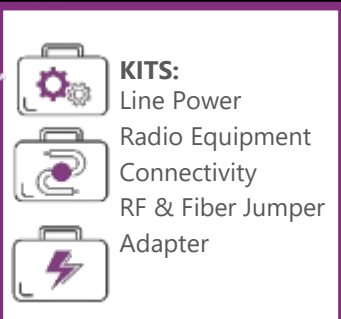
OUR MARKETS

Our Products Help Make Wireless Work and Enable Many Industrial Applications

Wireless Connectivity

Carrier Infrastructure

DAS & Small Cells

Public Safety

Industrial and Other Communications

Telecom and Networking

Aerospace and Defense

Electronics and Testing

Transportation

Oil and Gas

Land Mobile Radio

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OUR BRANDS
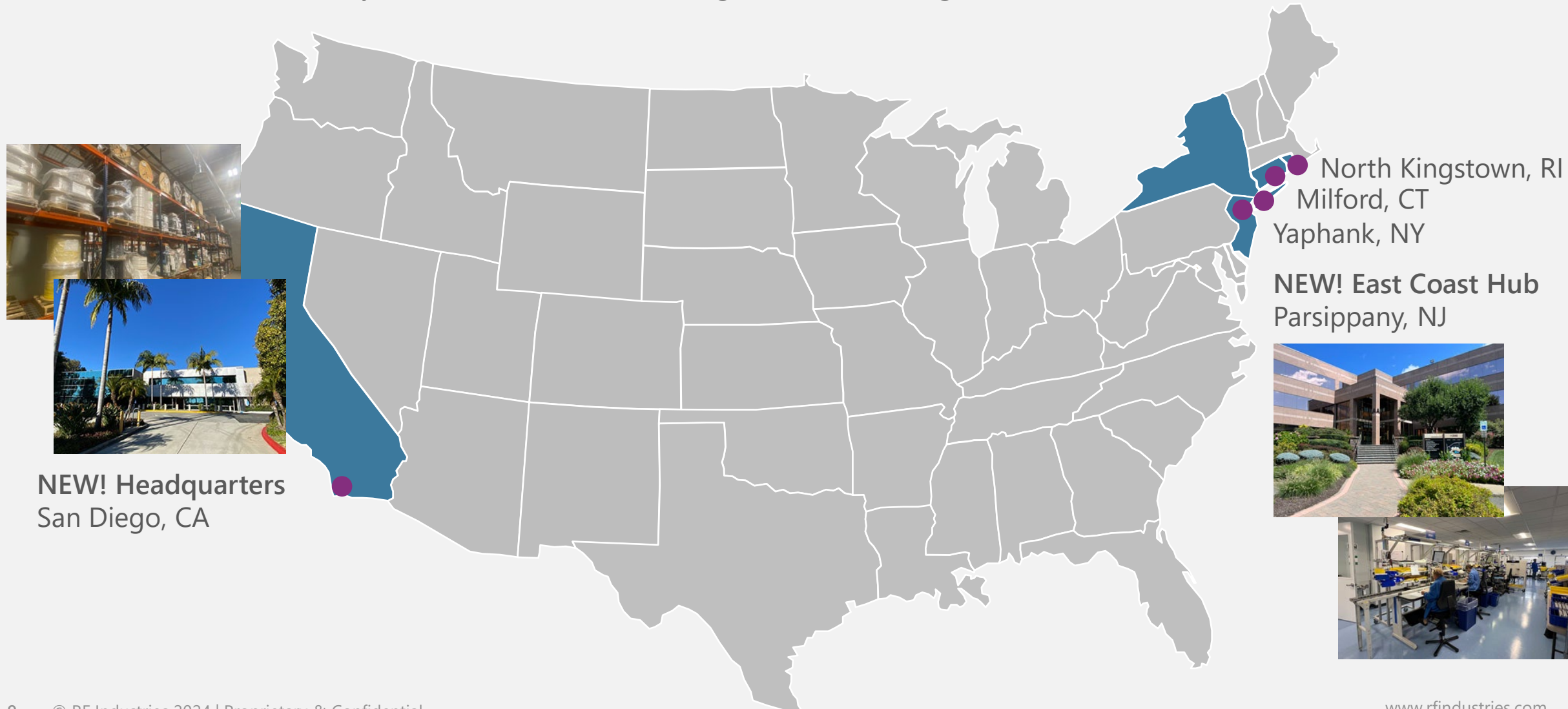

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VALUE PROPOSITION

RFI

Fast	• Speed of delivery requires deep understanding of customer inventory needs; and ability to manage inventory • Faster lead times than larger competitors
Flexible	• Customized product options and solutions
Reliable	• Consistent supplier of superior products at competitive prices
High Quality	• High quality products; ISO 9001 Certified; Corning Gold House Certified, AS9100 Certified
Customer Mix	• Customers include all Tier 1 carriers and high percentage of repeat customers

Enabling key applications to work through competitively priced, high-quality products results in high ROIC for customers

USA LOCATIONS

Multi-Coast Flexibility – Sales, Manufacturing, R&D and Logistics on Both Coasts

North Kingstown, RI
Milford, CT
Yaphank, NY

NEW! East Coast Hub
Parsippany, NJ

NEW! Headquarters
San Diego, CA

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RF Industries upholds sustainable, socially responsible and ethical business practices. We are dedicated to the success of all RFIL stakeholders, employees, customers, suppliers, and communities. We are also committed to delivering the best products and services to our customers, and our employees bring the diverse backgrounds and viewpoints needed to accomplish this goal.

CORPORATE RESPONSIBILITY

- **RFIL is Conflict Minerals Compliant**

- **DAC thermal cooling product solution reduces electricity costs by up to 75%; eliminates toxic chemicals**

- **344 total employees – Diverse workforce**

- **RoHS Compliant**

- **Two RFIL operations have Corning Assembly House Connection Gold Program Awards, the highest in fiberoptic cable production**

- **Five out of six of our directors are independent; Board is committed to best-in-class corporate governance**

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RF INDUSTRIES SALES + MFG REPS

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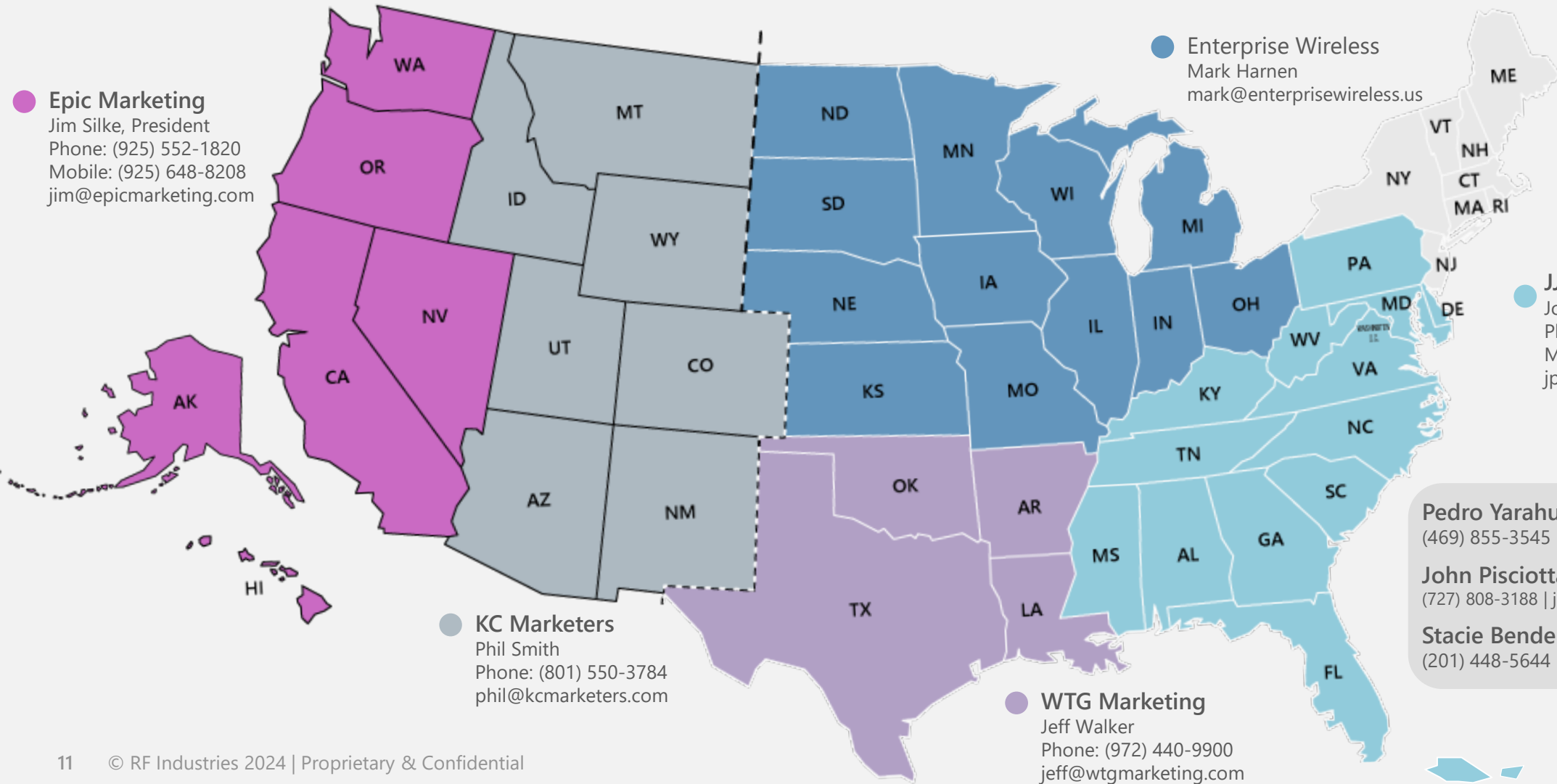
DISTRIBUTION & INTERNATIONAL SALES REPS

RFI

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ACCOUNT MANAGER, ANIXTER & ALLIANCE
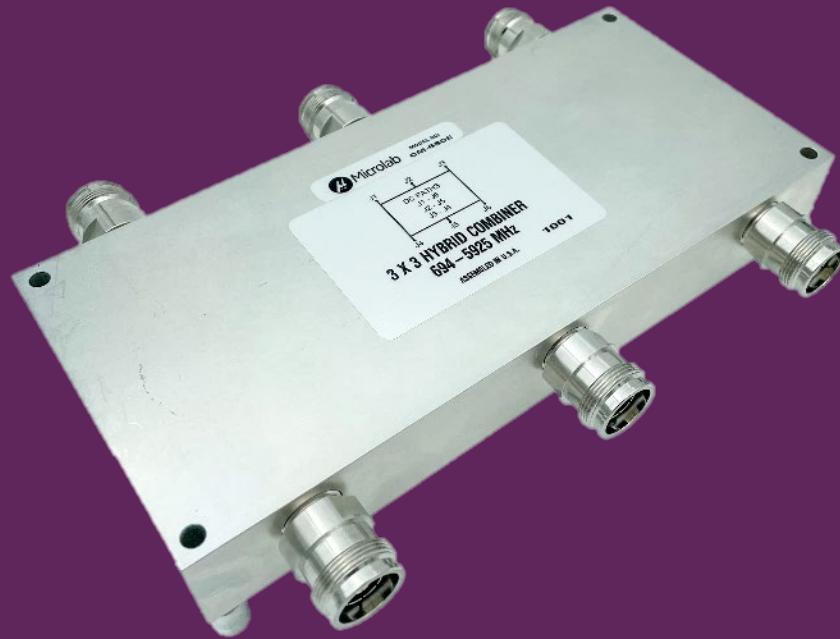Tammy Smith
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ACCOUNT MANAGER, GRAYBAR
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RFI PASSIVE PRODUCTS

The Complete BOM:
RF Coax Jumpers, Fiber and Copper Assemblies and Passive Components

www.rfindustries.com

CABLE ASSEMBLIES

The Largest Selection of RF, Fiber & Copper Standard/Custom Assemblies

QUICK TURN PROGRAM: ASSEMBLIES

With our large portfolio & full customization capabilities, we can deliver exactly what you need

- **Fast delivery – lead times is <u>days</u>, not weeks**
- Custom and standard configurations available
- Large selection of cable and connector types
- Corning Gold factory terminated and tested
- Custom options – weatherproof boots, labeling, custom breakouts, pull grips, weather glands
- Build schedules/demand planning available for large scale projects

LOW PIM & STANDARD RF CABLES

- Fast turn around time due to on hand components!
- Factory terminated and tested
- Online Test Results: PIM Tracker™
- Plenum listed, Low PIM, indoor, outdoor
- 1/4-, 1/2- and 3/8-inch; connectors is all major interfaces
- Custom-cut jumpers to the inch; we build jumper assemblies to meet your precise specifications

HIGHLIGHTS

- 2.2-5 and NEX10® Connector Configurations
- 3/8" Cable Configurations
- ¼" and ½" booted assemblies for Small Cell deployments!

RF Coaxial Cable Assemblies

PIM Tracker™ Tool

RF Cable Configurator

www.rfindustries.com

RF CABLE ASSEMBLY MATRIX

RFI has many jumper configurations available in-stock and we can supply non-traditional lengths. They are fabricated in the USA using in-stock components for quick turnaround time.

SELECT	SELECT	ADD
CABLE SIZE	**CONNECTOR** TYPES	**WEATHERPROOF** BOOTS
TFlex®-402	4.3-10	4.3-10
1/4-inch	Nex10™	Nex10™
3/8-inch	2.2-5	2.2-5
1/2-inch	7/16 DIN	7/16 DIN
	N Type	N Type
	QMA	Right Angles Available
	SMA	
	4.1-9.5	
	Right Angles Available	

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RF CONNECTORS AND ADAPTERS

All Industry Standard Interfaces Available

ADAPTERS & ADAPTER KITS

CONNECTORS

- All major interfaces including 4.3-10, 2.2-5, NEX10, 7/16 DIN

- Right-angle and pigtail assemblies with OEM-specific compression connectors

- Weatherproof boots to increase deployment flexibility

FIBER ASSEMBLIES

- High quality, short lead times and a lifetime warranty
- Two locations (NY, CA) with coast-to-coast coverage
- Fiber to the Antenna (FTTA) and Hybrid Cable solutions
- Transceivers manufactured for Storage Area Networks (SANs), High Speed Switches and Network Attached Storage (NAS)
- OEM and proprietary custom-built cables that meet all specified requirements

HIGHLIGHTS

- Exclusive licensing agreement with Corning Optical Communications
- Custom cable assemblies are in our DNA

CORNING | **CAH** Connections℠ Gold Program

Including:
Corning OptiTip and OptiTap hardened connector assemblies.
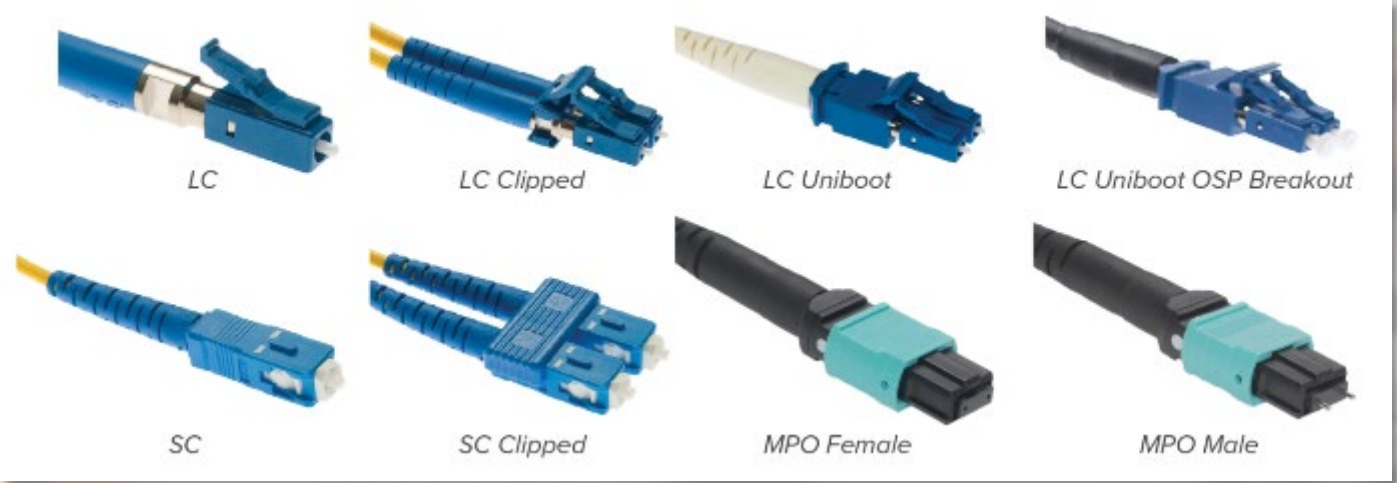
 www.rfindustries.com

FIBER ASSEMBLY MATRIX

RFI

Our custom-built fiber assemblies help you meet rapidly increasing demands for high-speed, high-performance wireless communications.

SELECT

CABLE TYPES

Loose Tube & Tight Buffer Indoor/C

Loose Tube OSP

Armored and Non-Armored

Hybrid/Composite Fiber & Power

Strand counts up to 144

SELECT

CONNECTOR TYPES

SC-UPC & SC-APC

LC-UPC & LC-APC

Uniboot LC Duplex

MPO/MTP

OptiTap/HFOC SC/APC

OptiTip/HMFOC MPO/MTP

FullAXS

ODVA

IPFX

SELECT

CUSTOM OPTIONS

Custom Lengths

Custom Breakouts

Custom Labeling

IP67 Weather Glands

Pull Grips

www.rfindustries.com

FIBER ASSEMBLIES

Make the right connection

LC — LC Clipped — LC Uniboot — LC Uniboot OSP Breakout

SC — SC Clipped — MPO Female — MPO Male

All RF Industries fiber assemblies employ the highest quality Industry and Carrier rated components to provide unmatched level of customer satisfaction.

IP-PLUS® Series — IP-ONE® Power + Data

     www.rfindustries.com

COPPER ASSEMBLIES

- Best on-time delivery record in the industry
- Since 1984, assembled in the USA from high quality components
- TAA compliant category patch cables – UTP, STP, Cat6A, Cat6E, Cat6, Cat5E, CMP, CMR in custom lengths and colors.
- Legacy and other copper assemblies – RS232, DAS, DS1/3, Video Coax, T1 and more – available
- High flexibility industrial copper assemblies assure a reliable Ethernet connection in harsh environments.

HIGHLIGHTS

- Now offering slimline "mini" CAT6 28 AWG patch cords for high density deployments in all colors and lengths
- Custom patch cord bundles in leg counts from 2 to 72 with sleeving and wrap options.

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MICROLAB PASSIVES

Passive Products for DAS, Small Cell, Wireless and Public Safety

MICROLAB VALUE PROPOSITION

- **Nationwide Carrier Approvals:** Verizon, AT&T, T-Mobile

- **Neutral Host / 3PO Approvals:** Crown Castle, Extenet, American Tower

- **OEM Approvals:** Ericsson, Samsung, JMA, Solid, ADRF

- **Tier 1 materials in-stock** with immediate delivery; up to 4 weeks above safety stock levels.

- **Guaranteed Specifications** over temperature, frequency, and unit-to-unit variation.
  - Competitors such as CommScope, Westell frequently specify "typical" performance

- **Guaranteed Low-PIM Performance:** Most products are spec'd <-161dBc PIM.
  - We utilize the same design methodology, materials, and processes for both our commercial and public safety line.

- **Features IP67 rating** (water ingress) for outdoor applications
  - Salt-Fog compliance available for harsh environmental conditions such as marine & coastal applications.

- High Quality & **High MTBF** (>1000 years)

• Microlab products are considered the "Gold Standard" in RF and Microwave distribution systems •

• Our products are produced utilizing the latest technologies, advanced systems and unique manufacturing techniques •

μLAB Microlab
A Division of RF Industries

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MARKET TRENDS

C-Band and BRS 5GNR combining for DAS Applications are driving sales growth in this category.

- C-Band and BRS (2.5 GHz) has been re-focused against mmWave
- Driven by BK-263E diplexer, BK-3001E & BK-3008E triplexers for Active DAS applications
- 3.45GHz products (Auction 110) have emerged

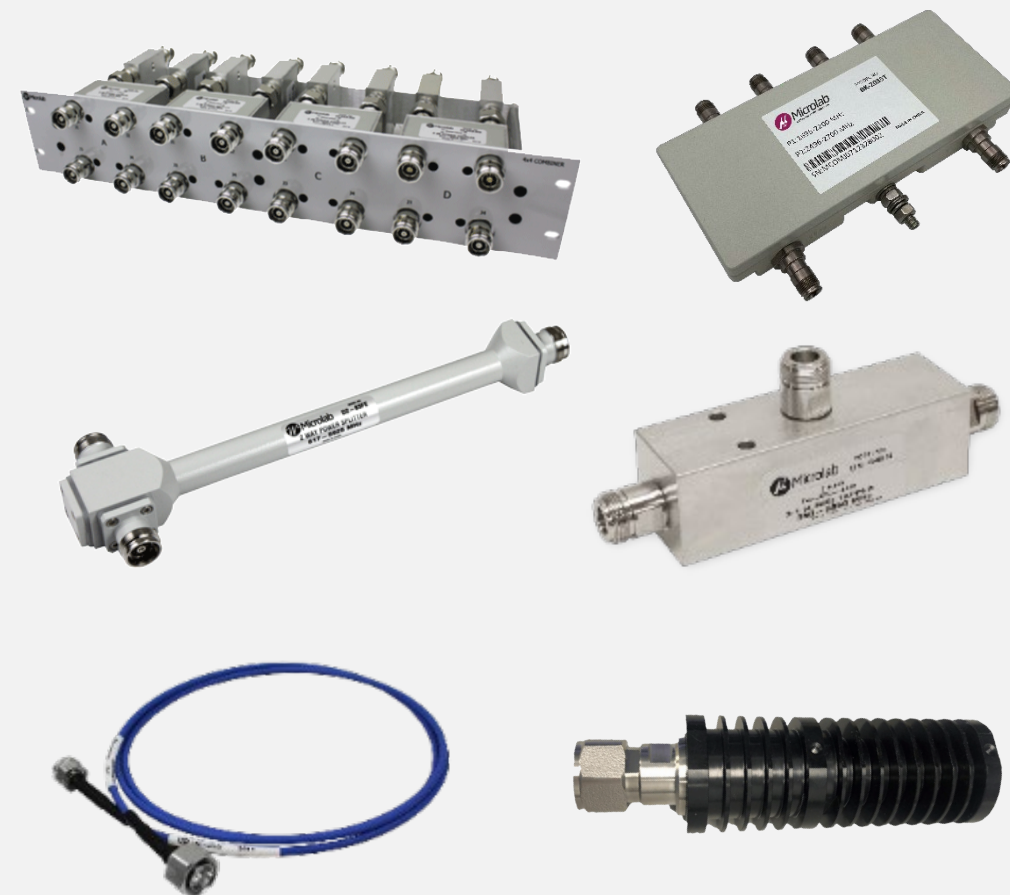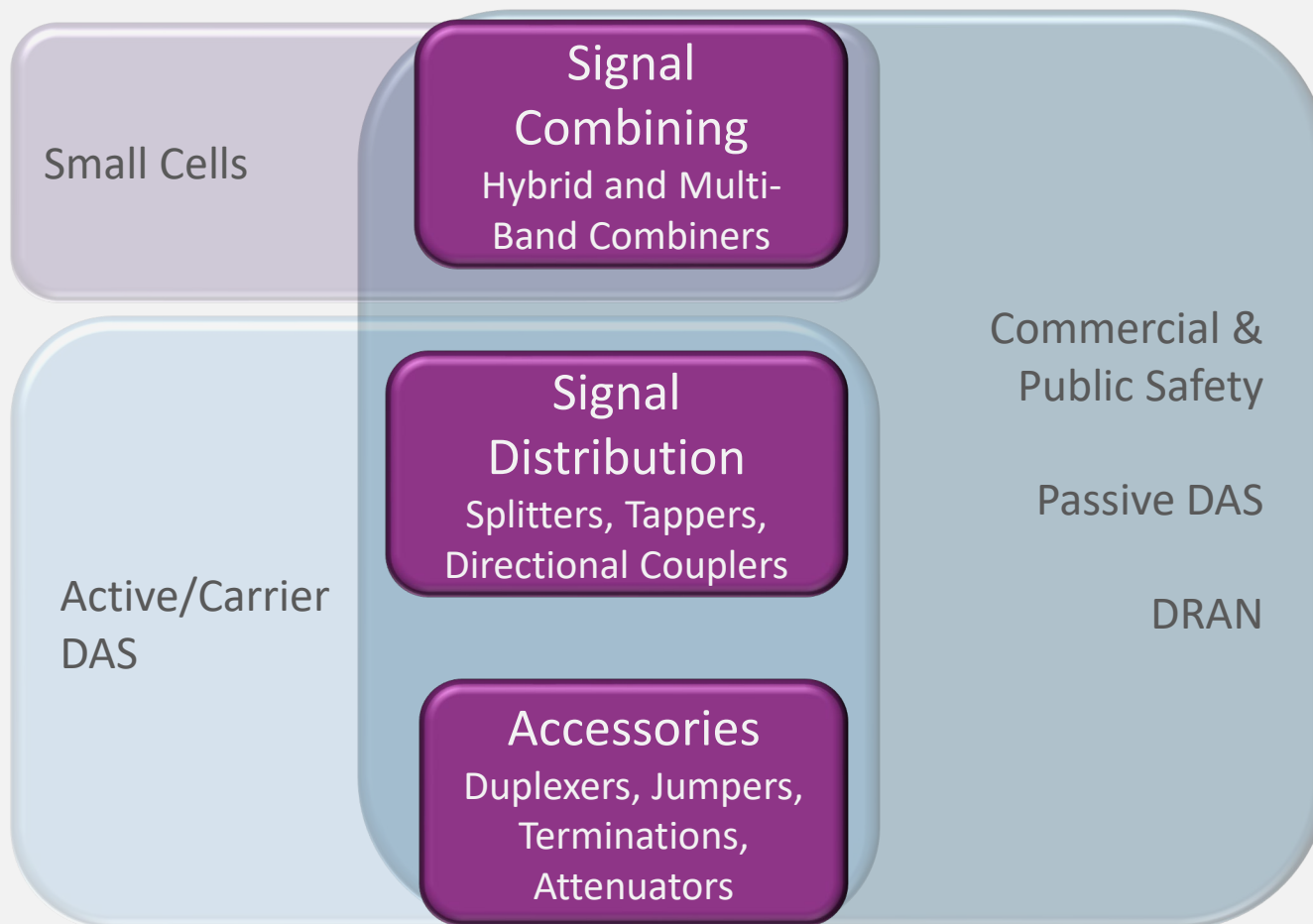## UWB (Ultra-Wideband) Passives Supporting 617-5925MHz (FR1) are standardized in designs

- New UWB "Resistive" Terminations are now feasible for TDD systems (3.45, C-Band & CBRS)
  - Terminating unused output ports (i.e., 4T4R deployed as 2T2R)
  - 2.2-5 connector Products have entered the market

Small Cell Solutions are emerging and becoming more popular.

- Concealment Solutions that are easy to implement and operate like TruField
- Small Cell Shroud Bundled "Jumper kitting" (RF & Fiber, Passives) Solutions
- Smaller form-factor combining products for Small Cells

DRAN C Band Support

MICROLAB: APPLICATIONS AND PRODUCT CLASSES

Small Cells

Active/Carrier DAS

Signal Combining
Hybrid and Multi-Band Combiners

Signal Distribution
Splitters, Tappers, Directional Couplers

Accessories
Duplexers, Jumpers, Terminations, Attenuators
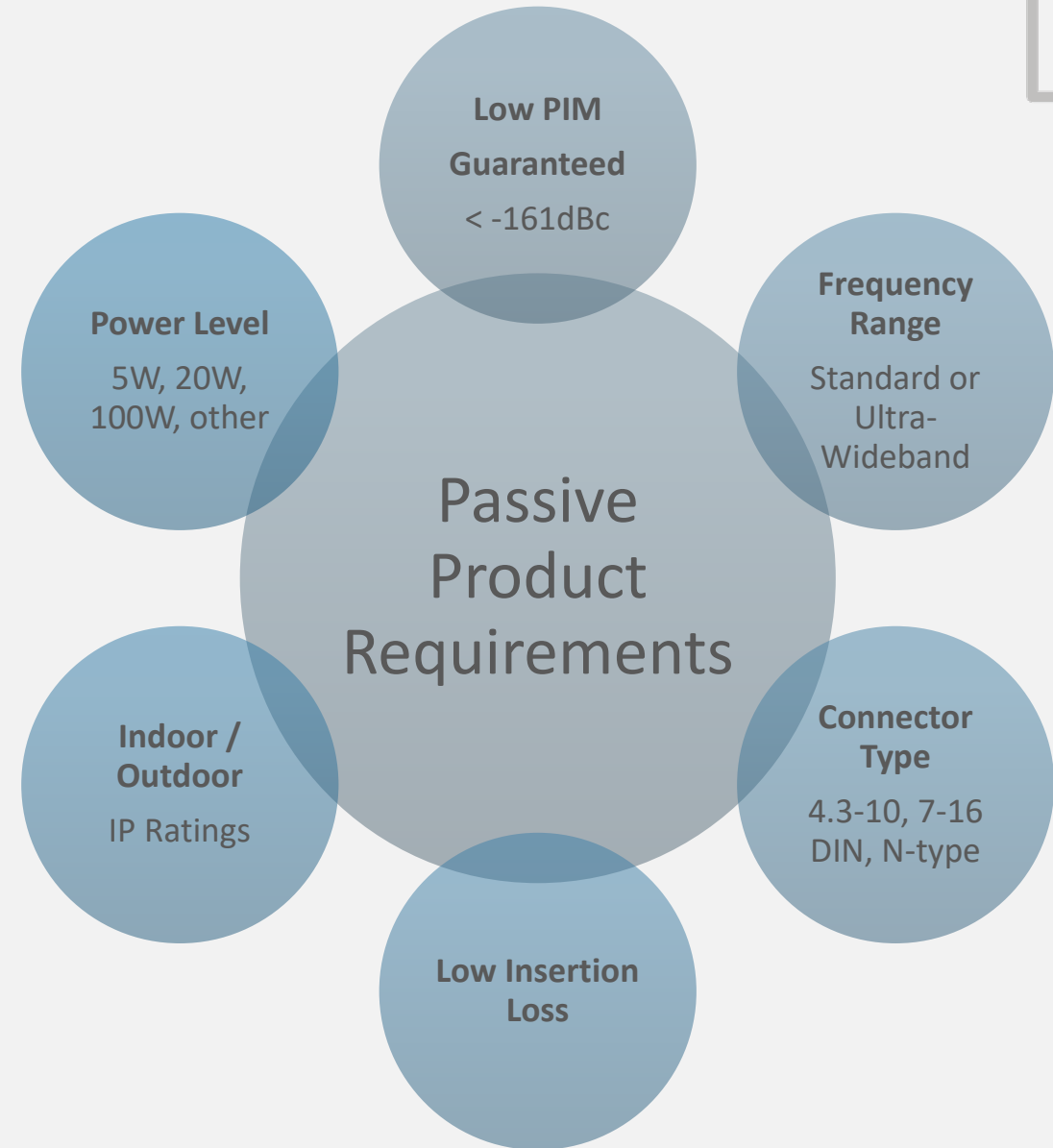
Commercial & Public Safety

Passive DAS

DRAN

- Passive Products can be categorized by three main classes
- Each Application (Small Cell, DAS, etc.) draws from one or more classes

Product Requirements

- Obtain as much information on your customer application and requirements. This will aid in providing the optimal solution.

- Knowing the application can also help determine if customers have critical issues in their BOMs, i.e. use of non-PIM-Rated components in 4G and 5G applications.

Passive Product Requirements

- Low PIM Guaranteed — < -161dBc
- Frequency Range — Standard or Ultra-Wideband
- Connector Type — 4.3-10, 7-16 DIN, N-type
- Low Insertion Loss
- Indoor / Outdoor — IP Ratings
- Power Level — 5W, 20W, 100W, other

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FREQUENCY BANDS

RFI and Microlab Products Cover 4 Main Wireless Communication Frequency Bands

PUBLIC SAFETY / CRITICAL COMMUNICATIONS | 130MHz to 1GHz

- Public Safety Systems: Land Mobile Radio (LMR), TETRA
- Wideband VHF (138 to 960 MHz)
- VHF Band (130-170)
- UHF Band (380-512)
- FirstNet B14 and PS 700/800/900 (700-900)

ENTERPRISE+ BANDWIDTH | 694-3800MHz

- Ideal for commercial wireless networks and private LTE networks that leverage CBRS spectrum

STANDARD BANDWIDTH | 617-2700MHz

- Covers popular 4G LTE, 3G WCDMA, 2G CDMA/GSM/EDGE

ULTRA-WIDEBAND | 617-5925MHz

- Covers all the standard bandwidth plus newer 5G spectrum
- Products that can future-proof a network

PASSIVE DAS COMPONENTS

For Every Application, Physical Environment & Budget

ULTRA-WIDEBAND

- Premium Performance
- Ultra-Wideband
- Lowest PIM
- Carrier Approved

Standard Bandwidth Also Available

ENTERPRISE+

- "Just Right" Performance
- Priced right for Enterprise Budgets
- Low PIM
- Over 40 new products added

PUBLIC SAFETY

- UHF & VHF (wideband)
- Options for all Public Safety bands
- Non-PIM rated and Low PIM
- Over 35 new products added

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ULTRA-WIDEBAND
LOW PIM

Overcome Your 5G Network Deployment Challenges

Upgrade Your Network with Confidence

- Meet the increased bandwidth and capacity demands for 5G
- Cover the entire FR1 frequency range (617-5925 MHz)
- Provide a future-proof path for all applications
- Guaranteed Low PIM Performance (<-161 dBc)
- Ensure high quality and high MTBF
- Carrier approved products

DIRECTIONAL COUPLERS

POWER SPLITTERS

WILKINSON SPLITTERS

COMBINERS

TERMINATIONS

TAPPERS

www.rfindustries.com

ULTRA-WIDEBAND
LOW PIM

Products to support signal combining and distribution for 5G & 4G applications from 600MHz to 6GHz; Supports C-Band, CBRS, and LTE-LAA

Hybrid Combiners

- CA-141E (2x2) : 617-5925MHz, < -161dBc
- CM-680E (3x3):617-5923MHz, < -161dBc
- CM-141E (4x4) : 617-5925MHz, < -161dBc

NEW!

Splitters

- Dx-83FE : 617MHz – 5925MHz, < -161dBc
- D2-76FE : 617MHz – 5925MHz, <-153dBc

Tappers / Directional Couplers

- DN-x4FE : 350 – 5930MHz, < -161dBc
- CC-6xxE series : 617 – 5925MHz, <-161dBc

Download our latest iBwave components at
https://microlabtech.com/5g

Terminations & Attenuators

- TK-600 series (5W-25W) : 350-5925MHz, < -161dBc
- AT-series (2W) : DC-6GHz
- TK-6xxMG Series 2.2-5 connector

DC Blocks (Surge Suppression)

- HR-26E: 250MHz – 6GHz, < -161dBc, Inner
- HR-29E: 250MHz – 6GHz, < -161dBc, Inner/outer

Conversion jumpers

- JA-series converts to/from 2.2-5, NEX10, and 4.3-10
- Available in 1m and 2m lengths
- 2.2-5 is a new compact connector competing against NEX10

Microlab
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ENTERPRISE+

Get the Right Performance, at the Right Price, from Microlab

Passive DAS reimagined for Enterprise Networks

- Support for enterprise DAS applications from 694 to 3800 MHz
- Guaranteed low PIM (<-155 dBc)
- Priced for Enterprise network budgets
- Microlab quality and reliability
- 4.3-10 and N-Type connectors
- IP65 rating; RoHS compliant

DIRECTIONAL COUPLERS

POWER SPLITTERS

TAPPERS

Microlab
A Division of RF Industries

PUBLIC SAFETY ✓

Optimize coverage, performance and reliability with non-PIM-rated Passives from Microlab

Cost-effective coverage and performance for Public Safety DAS

- Support for public safety applications from 340-960 MHz or 138-960 MHz
- Microlab quality and reliability
- Priced right for tailored public safety DAS performance
- N-Type connectors
- Painted red for simplified visual identification
- RoHS compliant; IP60 or IP65

DIRECTIONAL COUPLERS

POWER SPLITTERS

WILKINSON SPLITTERS

TAPPERS

μ LAB Microlab
A Division of RF Industries

NEW! ULTRA-COMPACT MULTI-BAND COMBINERS

Well-Suited for ANY Wireless Application where Space is Limited

Densify Your Network; Realize Cost Savings with Smaller Footprint

- Suitable for Small Cell, DAS & DRAN deployments
- Add 2.5/BRS, C-Band or 5GHz to existing networks
- Compact design is well-suited for shrouds with limited space
- Guaranteed low PIM (<-155dBc) | Minimal RF insertion loss
- NEX10® or 2.2-5 connectors
- IP67 Rated | RoHS compliant

Get the Performance and Flexibility you Need in the Most Space-Constrained Locations

MODULAR POI – MCC SERIES™

Passive Modular Carrier Combiner for Neutral Host Small Cell and D-RAN Architectures

- **NEW! 5G filter inserts**
- **Tier 1 Carrier & Neutral Host Approved**
- Ultra-wideband operation (6GHz)
- Modular design for flexibility with the option to easily add/upgrade in the future.
- C-Band/CBRS/DoD (3.45GHz) ready
- Low loss and low PIM performance for maximum network coverage and throughput
- Up to 40W per input
- IP67 rating for outdoor and indoor applications
- Rack and wall-mount options

Are You Ready for C-Band?

Support multi-carrier and multi-band neutral host MIMO or SISO applications at a <u>very economical price point</u>

C-BAND COMBINERS FOR MCC SERIES DRAN

MCC200-502

- Pentaplexer
- Combines 600-850/PCS/AWS/BRS-WCS/C-Band
- 40dB Input Isolation
- 40 W/input
- AT&T/TMO Applications

MCC200-503

- Pentaplexer
- Combines 700/850/PCS/AWS/C-Band
- 40dB Input Isolation
- 40 W/input
- VZ Applications

NEW!

MCC200-SRC-00
MCC200-SRC-02

MCC200-SRC-01

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C-BAND UWB COMBINERS

CM-680E 3x3

- UWB 3x3 Hybrid Combiner Matrix
- Use with MCC platform or in standalone applications

CM-141E-xR series 4x4

- UWB 4x4 hybrid Combiner Matrix
- High Isolation and Low VSWR
- 100 W/input
- Use with MCC platform or in standalone rackmount applications

CM-141E-2R

CM-141E-4R

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GPS DISTRIBUTION PRODUCTS

- GPS is a convenient way to **provide timing and location** for radio resource hardware (aka BBU's)

- Necessary for radios to be synchronized with the network & provide **seamless hand-off** between sectors and indoor/outdoor systems

- Microlab's GPS Distribution products provides GPS timing and synchronization for:
  - C-RAN Hubs
  - DAS Head-End Locations
  - Enterprise Femto/Pico Cells

- Active and Passive solutions available

- Digital GPS Repeater and Lossless Splitter Tray offer Antenna Redundancy with Microlab's **Digital SkyTiming Technology**
  - Switches based on the quality of the GPS signal
  - Industry First and Exclusive feature

ENGINEERED SOLUTIONS

Concealment and Thermal Solutions

CONCEALMENT SOLUTIONS

Mid-Pole Shrouds for Small Cells
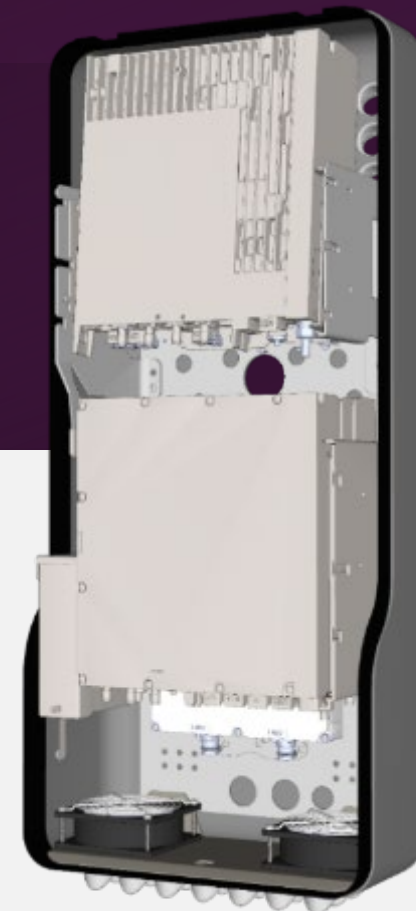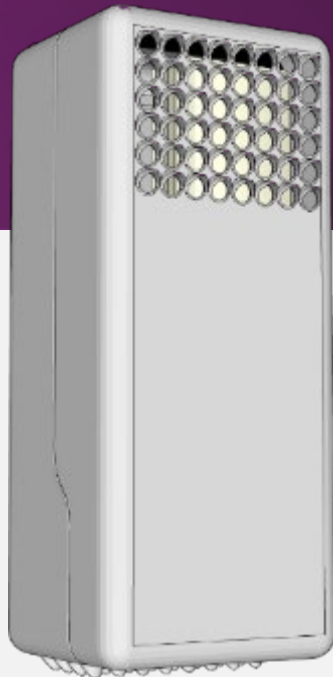
COMPACT MID-POLE SMALL CELL SHROUD

PART #AF000141
35"H X 15.5"W X 9"D

- Vented NEMA 3R enclosure

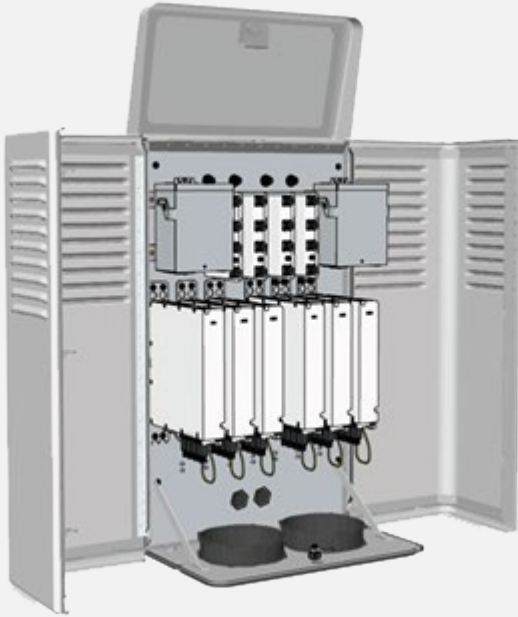- Houses up to 4 radios

- RF transparent housing for interior antenna applications

- Removable cover to facilitate access to equipment for field servicing and radio swap/upgrade

- Carrier and municipality approvals

- Rear EMT connection cutout for power, RF cabling & fiber routing through hollow utility poles

- Secures to poles with customer supplied SS bands

- Optional Forced Convection Cooling System to manage heat loads

- Choice of grey, black, brown and green to meet local specifications

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MEDIUM MID-POLE SMALL CELL SHROUD

PART #AF000361
38"H X 16"W X 14"D

- Houses up to 4 radios

- Vented NEMA 3R enclosure

- RF transparent housing for interior antenna applications

- Removable cover to facilitate access to equipment for field servicing and radio swap/upgrade

- Carrier and municipality approvals

- Rear EMT connection cutout for power, RF cabling & fiber routing through hollow utility poles

- Secures to poles with customer supplied SS bands

- Optional Forced Convection Cooling System to manage heat loads

- Choice of grey, black, brown and green to meet local specifications

 www.rfindustries.com

LARGE MID-POLE SMALL CELL SHROUD

PART #AF000344
42"H X 24"W X 14"D

- Houses up to 6 radios
- Vented enclosure with hinged doors and top
- Bottom EMT connection cutouts for power, RF cabling and fiber routing (for solid or hollow utility poles)
- Rear panel mount RF connectors for solid poles
- Secures to poles with customer supplied SS bands and line-drilled through-holes for carriage bolts
- RF transparent housing for interior antenna applications
- Chassis with multiple fixing points for optional configurable equipment bracketing and power distribution unit
- Optional Forced Convection Cooling System to manage heat loads
- Choice of grey or brown colors to meet customer specifications

ACHIEVE YOUR 5G DENSIFICATION GOALS

RFI | Powered by **schrofftech**

Add small cells to more locations
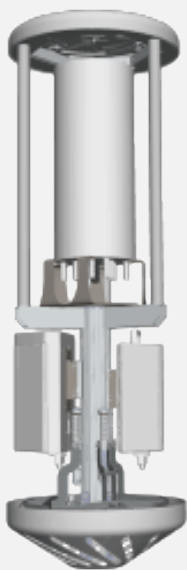
TruField® Pole-Top Shrouds

- Conceal small cell equipment at any height, on any pole, new or existing

- Truly RF Transparent: Fabric Material v/s hardened

- Band Agnostic

- Proprietary continuous air flow system

RF Industries helps you bring the benefits of 5G to more people, devices and applications in more locations. Our end-to-end portfolio of passive small cell solutions gives you new flexibility to expand small cell rollouts and more innovative ways to efficiently connect and conceal small cell equipment in plain sight.

Our complete portfolio of passive small cell solutions simplifies every aspect of connecting and concealing small cell equipment indoors and outdoors, from pole-top to bottom.

We offer:

- Shrouds

- Fiber optic trunk cables, jumpers and pigtail splice kits

- Coaxial cable and jumper assemblies

- Diplexers, triplexers, terminations, attenuators and splitters

- Power distribution units (PDUs), power sleds and fans

WHAT IS TRUFIELD®

- Pole top, Kevlar fabric shroud with virtually no transmission losses across low-band, mid-band (C-Band) and mmWave frequencies.

- Exceptional ease of:
  - Deployment
  - Access
  - Operations & site maintenance

- A flexible platform to accommodate any typical radio configuration.

- Durable & weather resistant.

- Carrier approved through neutral host partners.

- Color matching capabilities.

TRUFIELD FEATURES AND BENEFITS

TruField® is a patented technology using a thin, tensioned fabric membrane for small cell concealment applications.
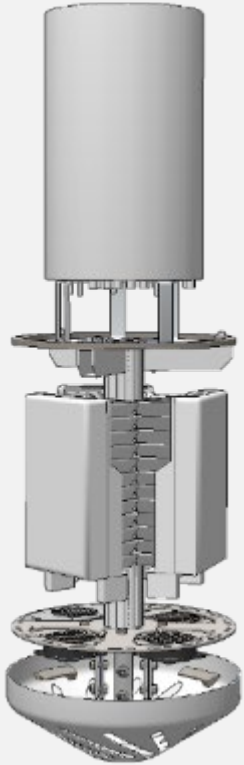
True RF Transparency & Band Agnostic Benefits:

- Virtually no transmission losses across low-band, mid-band (C-Band) and mmWave frequencies.
- No lensing effect: With and W/O Shroud RF patterns are indistinguishable from one another

Highly configurable mechanical platform

- Supports a wide variety of Radios and Antenna. Strong central shaft maximizes use of internal volume. "Future-proof"

Easy Installation & Maintenance

- Zipped, flexible fabric providing best in class access vs. rigid and paneled existing products.
- **Lightweight:** half the weight of equivalent enclosures.

True RF transparency is a very unique feature especially at the newly deployed 5G millimeter wave bands (27 to 40GHz).
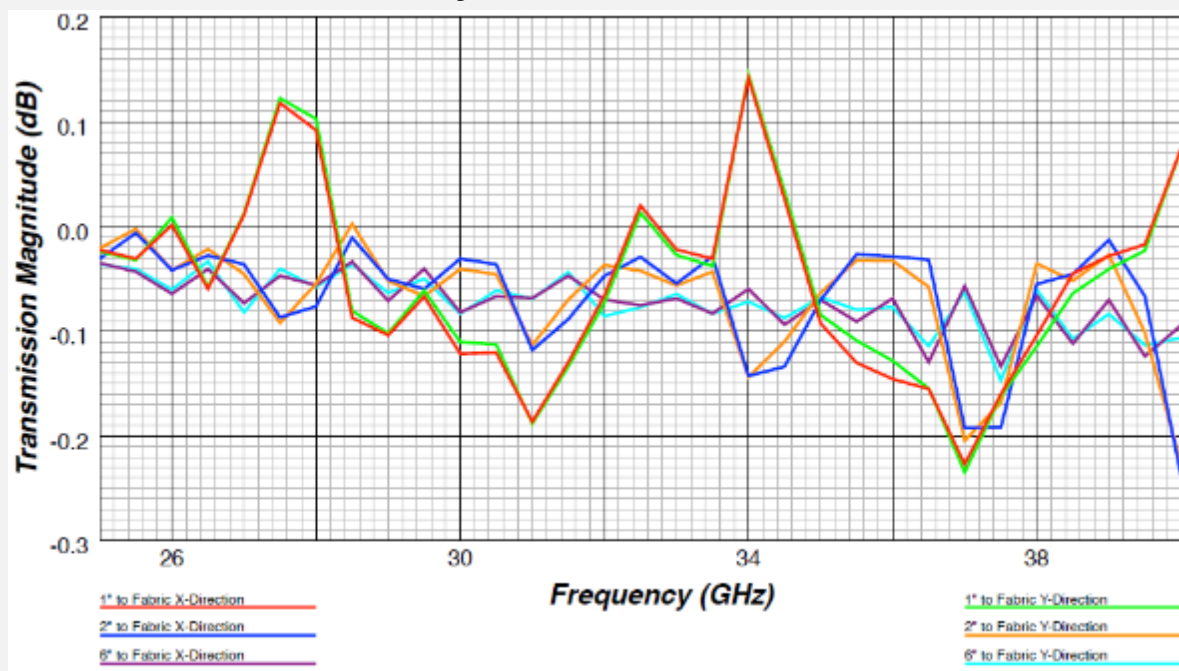
TruField

Cannister antenna

Radios

Pole top

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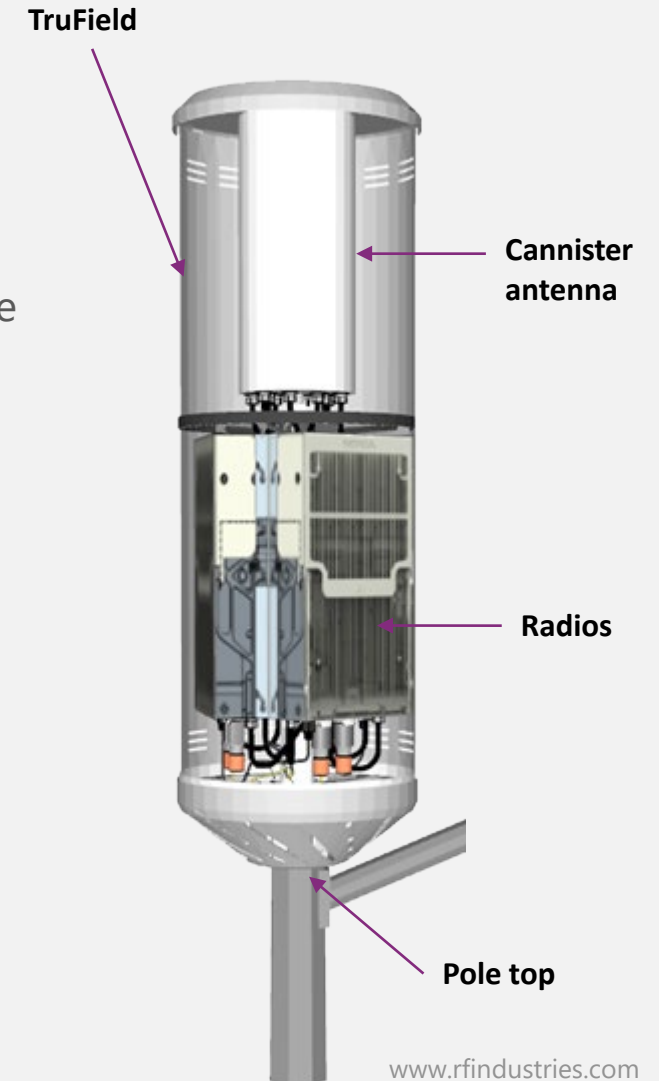
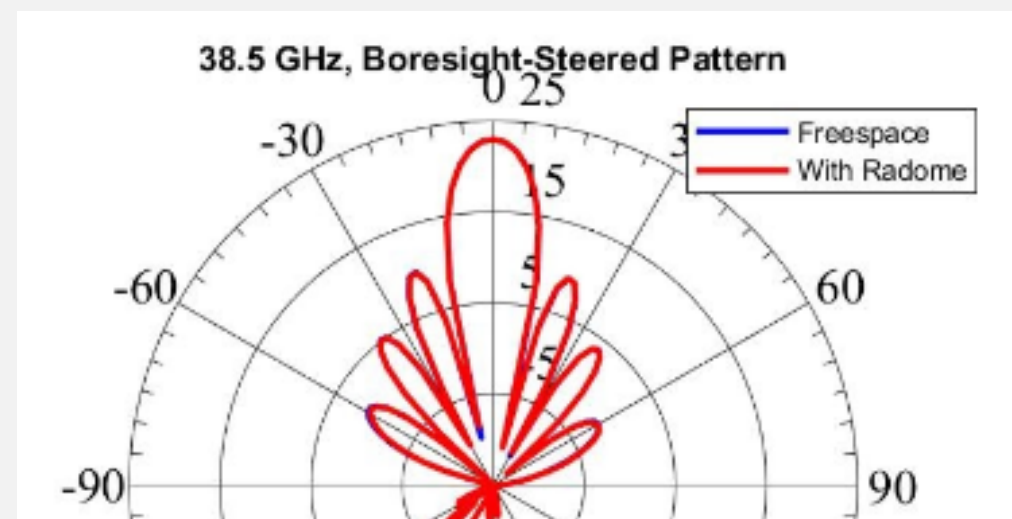# TRUFIELD QUALIFICATION PROCESS

True RF transparency: With and W/O shroud RF patterns are almost indistinguishable from one another. **RF simulation and actual tests performed for 1-6GHz and 27-40GHz bands with 4 external labs.**
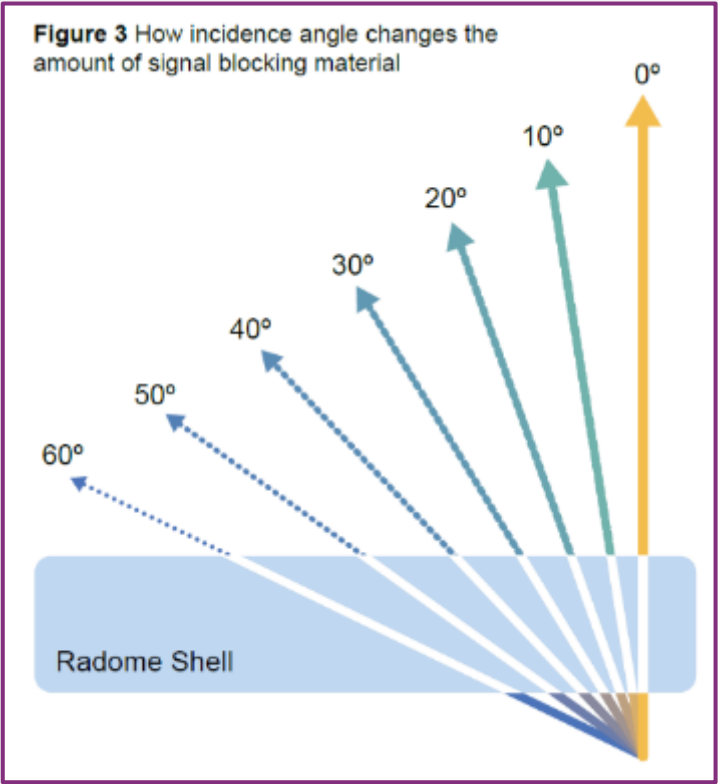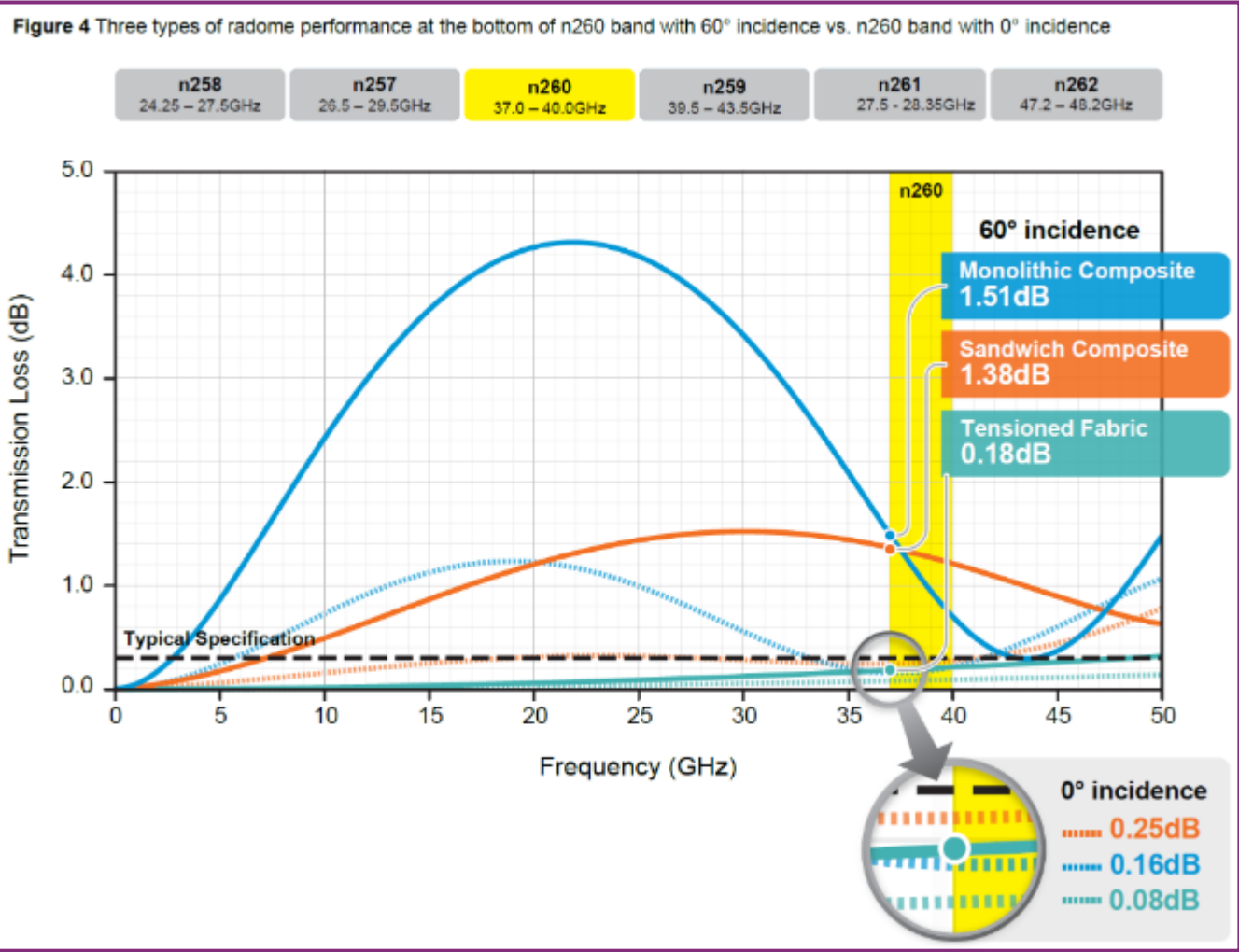
Virtually no transmission losses:


No lensing effect:

Orders of magnitude better than competition. TruField is approximately 20 times thinner and will not require any tuning.

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RF TRANSPARENT & BAND AGNOSTIC

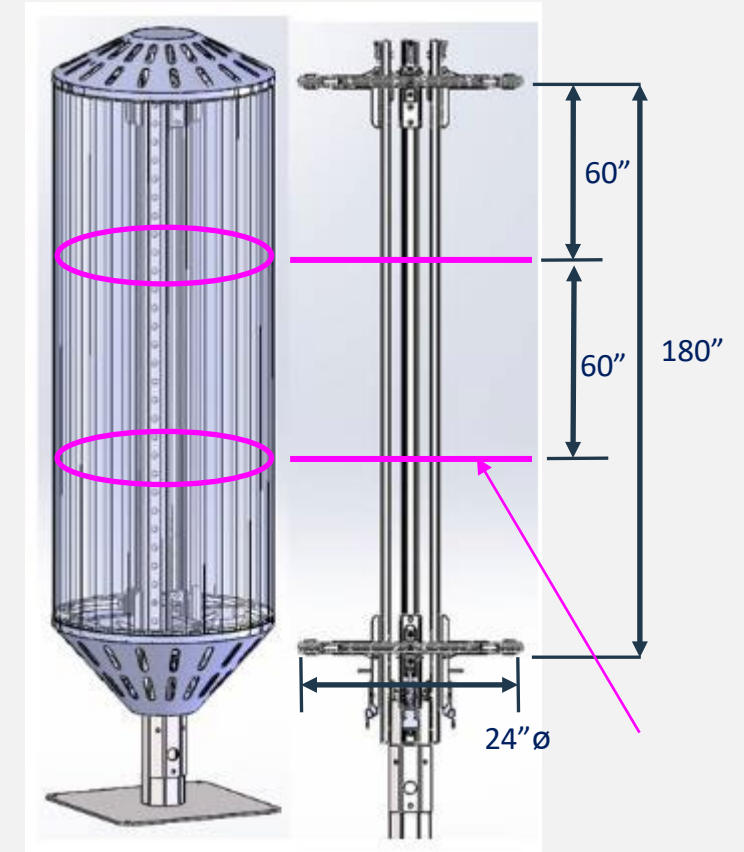Figures 3 and 4: Adapted from Saint Gobain White Paper " Sheergard® Radome Solutions for 5G mmWave" October 2021

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APPLICATION & INTEGRATION EXAMPLES

TruField 4G antenna & 5G radio

4G equipment
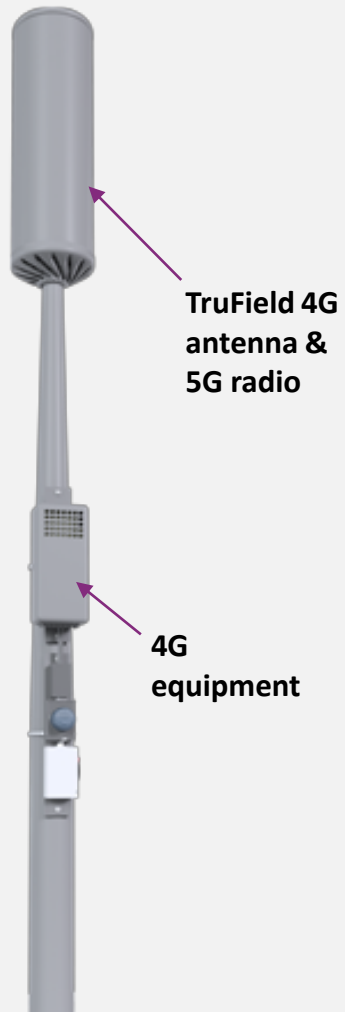
Pole top with cannister antenna (700MHz to 6GHz) and 27 to 40GHz mmWave radio

60"

60"

180"

24" ø

Multi-tenant macro/small cell concealment for radios and antennas

TruField® mechanical structure and fabric "sock" platform can easily scale in diameter or length.

SMALL CELL CUSTOMER CASE STUDY

Munisite Networks Brings Concealed 5G to Jersey Shore with RF Industries TruField®

CHALLENGE: As a thriving vacation area with a large year-round population, the Jersey Shore is a natural location for 5G network expansion. But the area's densely populated communities and famous boardwalk mean small cells must be strategically placed to increase wireless capacity and coverage in an effective, yet cost-efficient way.

SOLUTION: With RF Industries' TruField pole-top concealment shrouds, Munisite was able to efficiently deploy and conceal the wireless carrier's small cell equipment at dozens of locations along the Jersey Shore while ensuring outstanding 5G performance. Measurements confirm the wireless carrier's customers now enjoy download speeds of more than 2 Gbps and upload speeds of more than 200 Mbps in the area. Because the TruField concealment shrouds are designed to support multiple tenants with no signal degradation, Munisite can easily add equipment from another wireless carrier, IoT company or public entity to each site to generate additional revenue.

Read the Case Study

INSTALLATION KITS

Pre-Configured Options & Custom Integrations
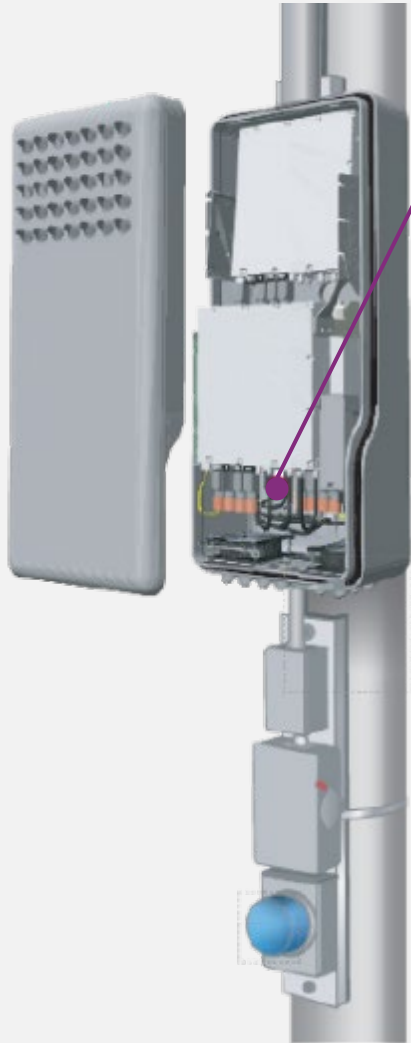
RADIO EQUIPMENT KITS

- Radio Brackets
- Power Distribution Unit
- Internal RF Cabling
- Internal Fiber Cables
- Cooling System

LINE POWER KITS

- Input Cables
- Output Cables
- Converter Cables
- Radio Power Cables

CONNECTIVITY KITS

- Power Meter Tray and Disconnect
- Power Wiring
- Mounting Sleds

- RF Cables from Shroud to Antenna
- Fiber Cables from Shroud to Customer Demark

SMALL CELL INSTALLATION KITS

- RFI offers turnkey, preconfigured, custom connectivity kits to meet any RF, fiber, and power requirements.

- Our engineers will examine site specific construction drawings to determine requirements.

- Kits available for any pole/shroud configuration.

WHY KITS?

- **Consistent** and quality materials used for every site.

- **Factory testing** ensures high quality electrical and fiber optic performance.

- **Cost control** and waste reduction

- **Single point of accountability** for all materials needed.

- **Factory assembled & tested Low PIM Jumpers** eliminate expensive install time at the pole while increasing quality of connectivity

- **Customizable** based on-site type and specific site characteristics (height, distance from backhaul handoff, etc.).

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THERMAL COOLING

Direct Air Cooling(DAC) & HVAC Solutions
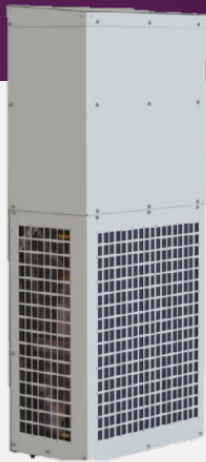
DIRECT AIR COOLING (DAC)

- Massively reduce electricity consumption – proven to use 75-90% less electricity than traditional HVAC systems
- Earn green rewards through energy rebates and green initiative programs
- Leverage existing investments by combining DAC with your current heating and HVAC
- Avoid costly business disruptions with DC-powered thermal management that remains operational during outages
- Reduce maintenance costs with wired and wireless system monitoring and low service requirements.

REDUCE COOLING ELECTRICITY BY 75%

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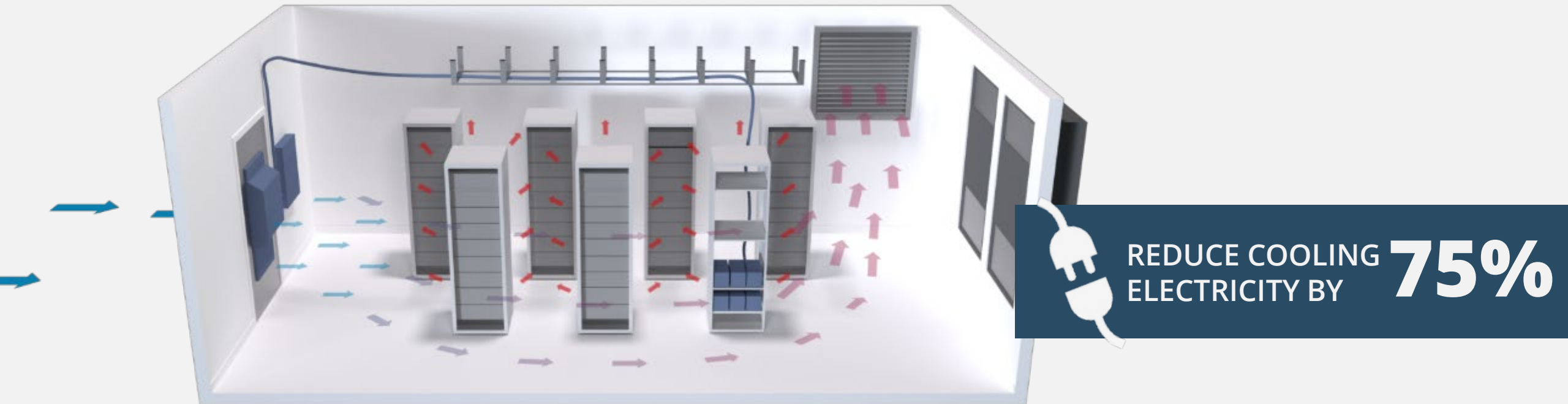
DAC: DOOR MOUNTABLE SYSTEM

Telecom Shelter Cooling System for Doors

- Dual, variable speed, and high efficiency blowers apply positive pressure to the shelter

- Includes a Deep Media Filter (MERV 16) (MERV 14 is available)

- Fits doors as narrow as 3'-0" width

- Regulated by the Smart Controller (part # AF000400) that controls up to 3 DAC fans and 2 HVAC units

- Reduces compressor cycling, extends the life of HVACs and reduces HVAC maintenance costs

- Suitable for harsh marine environments

AF000402

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DAC: WALL MOUNTABLE SYSTEM

Telecom Shelter Cooling System for Walls

- Dual, variable speed, and high efficiency blowers apply positive pressure to the shelter

- Includes a Deep Media Filter (MERV 16) (MERV 14 is available for non-coastal environments)

- Fits HVAC return or supply opening (3 to 6 ton)

- Regulated by the Smart Controller (part # AF000400) that controls up to 3 DAC fans and 2 HVAC units

- Reduces compressor cycling, extends the life of HVACs and reduces HVAC maintenance costs


AF000401

DAC: CABINET KIT

Outdoor Telecom Cabinet Cooling System

- Cools up to 4kW heat load cabinets using less than 250W with quad high efficiency fans, delta T as low as 5 degrees C.

- Dust free system thanks to positive pressure applied to the cabinet and deep media long life telco grade air filters (MERV 14 or 16).

- Modular platform can fit most cabinets with door panel larger than 24 (W) x 57 (H) inches (both units on same door) or as small as 24 (W) x 30 (H) inches (front & back installation).

- Complete cooling kit for fast field cabinet upgrades. Kit includes Filter/Fan lower unit with hood, exhaust damper with hood (no cabinet front door panel).

**AF000190**

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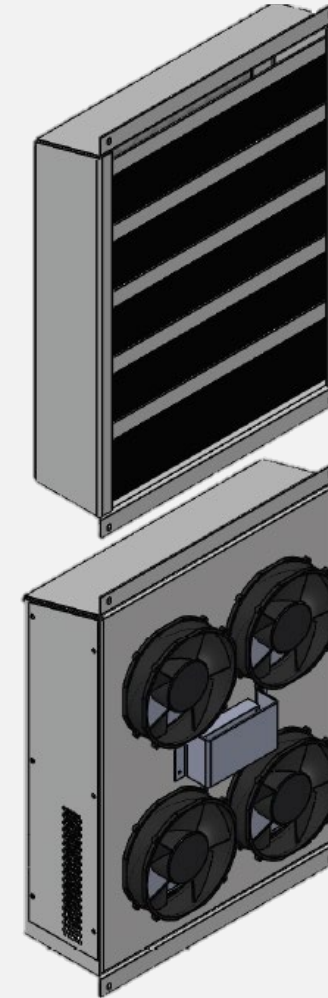
WALL MOUNTED AIR CONDITIONERS

-48 VDC Air Conditioners for Telecom WIC and Shelters

These AC units complement our Next Generation DAC providing a complete end-to-end solution.

- Small form factor, lightweight and designed for easy installation and maintenance

- Rugged construction, all-weather resistant and suitable for harsh marine environments

- Leverages success of commercial transportation HVAC designs

- 100% DC powered – eliminates the need for inverters

- Factory pre-charged with commercial R134a low-pressure refrigerant, eliminating leaks, reducing maintenance

AF000404
AF000405

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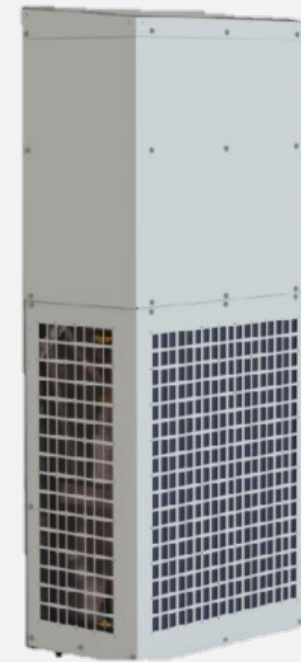
DIRECT AIR COOLING (DAC) CASE STUDIES

Maximizing Thermal Management in Tower Sites

Reducing the use of electricity at tower sites is high priority for wireless carriers these days. One way of doing this is by reducing HVAC use, which generally accounts for a good deal of the electricity use of a cell site. Reducing electricity use also helps carriers meet commitments they have made to be carbon neutral.

To lower those costs and meet sustainability goals, wireless carriers are turning to RF Industries' (RFI) Next Generation Direct Air Cooling (DAC), a fan-based direct air cooling system that provides low maintenance, energy-efficient, and environmentally friendly cooling options for equipment cabinets and shelter enclosures. It works by bringing fresh, outside air to the equipment in an energy-efficient, controlled and clean manner.

[Read the Case Study](#)

Overcoming Humidity Challenges in Historic Montauk Point lighthouse

As one of the oldest lighthouses in the United States, Montauk Point Lighthouse has been weathering the harsh, seaside conditions at the tip of Long Island, New York, since it was completed in 1796. Despite constant maintenance of the Lighthouse tower over the years, by 2019, increasing condensation was causing significant issues. Corrosive salt moisture was becoming trapped in the Lighthouse and collecting in the lantern room, where it then seeped downward, creating risks to the tower structure.

Unfortunately, the off-the-shelf dehumidifier and monitoring system couldn't deliver the reliable performance needed. A ventilation system that had been very effectively operating at a nearby telecommunications site for several years inspired the Lighthouse maintenance team to contact Schrofftech, a division of RF Industries.

[Read the Case Study](#)

RFI

Questions?

THANK YOU
FOR YOUR
ATTENTION

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