# E20540JCASS-24CT MICFIBR

### E20® Coaxial/Fiber Hybrid Buried Cable



- E20 is a solution that enables service providers the ability to bridge HFC networks to FTTx. The E20 composite coaxial/fiber product line combines fiber, microducts, and coaxial cable under one jacket
- Serves businesses in a new commercial serving area
- Mitigates future cost of fiber installation
- Saves on initial installation due to "single sheath" vs. multiple sheaths
- Ideal for commercial data customers that also require video
- All products tested to industry standards

#### OBSOLETE

Product Classification	
Product Type	Hybrid cable, coax and fiber
Product Brand	E20®
General Specifications	
Cable Series	QR 540
Total Fiber Count	24
Dimensions	
Height	24.638 mm   0.97 in
Width	17.018 mm   0.67 in
Outer Jacket Thickness, nominal	0.762 mm   0.03 in
Material Specifications	
Outer Jacket Material	Medium density polyethylene (MDPE)
Mechanical Specifications	
Minimum Bend Radius	101.6 mm   4 in
Pulling Tension, maximum	33.112 kg   73 lb

### **Environmental Specifications**

**Environmental Space** 

Buried

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# E20540JCASS-24CT MICFIBR

### Packaging and Weights

Weight, gross

273.822 kg/km | 184 lb/kft

### Regulatory Compliance/Certifications

#### Agency

#### Classification

ISO 9001:2015

Designed, manufactured and/or distributed under this quality management system



### Included Products

# 5510192-75 Ohm QR® Trunk and Distribution Cable, black PE jacket, flooded for underground<br/>QR® 540 JCASS810008925/DB-LightScope ZWP® Blown Micro Single Jacket All-Dielectric Outdoor Stranded Loose Tube Arid-<br/>Core® Construction Cable

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## 5510192 | QR® 540 JCASS

75 Ohm  $\ensuremath{\mathsf{QR}}\xspace$  Trunk and Distribution Cable, black PE jacket, flooded for underground

Coaxial hardline cable

QR®



Product Type

Product Brand

### General Specifications

Cable Type	540 Series
Construction Type	Welded
Jacket Color	Black
Short Description	QR 540 JCASS SM PR2171

#### Dimensions

Cable Length	1,127.76 m   3700 ft
Diameter Over Center Conductor, nominal	3.15 mm   0.124 in
Diameter Over Dielectric, nominal	13.056 mm   0.514 in
Diameter Over Jacket, nominal	15.494 mm   0.61 in
Diameter Over Outer Conductor, nominal	13.716 mm   0.54 in
Jacket Thickness, nominal	0.889 mm   0.035 in
Outer Conductor Thickness, nominal	0.343 mm   0.014 in

### **Electrical Specifications**

Capacitance	50.197 pF/m   15.3 pF/ft
Capacitance Tolerance	±1.0 pF/ft
Characteristic Impedance	75 ohm
Characteristic Impedance Tolerance	±2 ohm
dc Resistance Note	Nominal values based on a standard condition of 20 °C (68 °F)

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# 5510192 | QR® 540 JCASS

dc Resistance, Inner Conductor, nominal	3.346 ohms/km   1.02 ohms/kft
dc Resistance, Loop, nominal	5.282 ohms/km   1.61 ohms/kft
dc Resistance, Outer Conductor, nominal	1.936 ohms/km   0.59 ohms/kft
Jacket Spark Test Voltage	5000 Vac
Nominal Velocity of Propagation (NVP)	88 %
Operating Frequency Band	5-3000 MHz
Structural Return Loss	24 dB @ 1003–1218 MHz   24 dB @ 1219–1794 MHz   30 dB @ 5–1002 MHz
Structural Return Loss, Grade N	=24 dB @ 1003-1218 MHz   =24 dB @ 1219-1794 MHz   =30 dB @ 5-1002 MHz

### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
5.0	0.46	0.14
55.0	1.54	0.47
85.0	1.94	0.59
204.0	3.05	0.93
211.0	3.12	0.95
250.0	3.38	1.03
300.0	3.71	1.13
350.0	4.04	1.23
400.0	4.33	1.32
450.0	4.59	1.4
500.0	4.89	1.49
550.0	5.12	1.56
600.0	5.38	1.64
750.0	6.07	1.85
865.0	6.56	2
1002.0	7.12	2.17
1218.0	7.89	2.41
1500.0	9.07	2.76
1794.0	10.11	3.08
1800.0	10.13	3.09
2000.0	10.81	3.29
2200.0	11.46	3.49

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# 5510192 | QR® 540 JCASS

2500.0	12.41	3.78
2700.0	13.03	3.97
3000.0	13.93	4.24
Material Specifica	tions	
Center Conductor Material		Copper-clad aluminum
Dielectric Material		Foam PE
Jacket Material		PE
Outer Conductor Material		Aluminum
Mechanical Speci	fications	
Pulling Tension, maximum		99.79 kg   220 lb
Environmental Sp	pecifications	
<b>Corrosion Protection</b>		Migraheal®
Environmental Space		Buried
Packaging and W	/eights	
Packaging Type		Reel
Weight, gross		178.58 kg/km   120 lb/kft
Regulatory Comp	liance/Certificatio	NS
Agency	Classification	
ISO 9001:2015	Designed, manufactured a	nd/or distributed under this quality management system
ISO		

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9001:2015



# 810008925/DB | B-024-LN-8W-F12NS/16G



LightScope ZWP® Blown Micro Single Jacket All-Dielectric Outdoor Stranded Loose Tube Arid-Core® Construction Cable

### Product Classification

Regional Availability	Asia   Australia/New Zealand   EMEA   Latin America   North America
Portfolio	CommScope®
Product Type	Fiber OSP cable
Product Series	B-LN
General Specifications	
Cable Type	Stranded loose tube
Construction Type	Non-armored
Fiber Type, quantity	24
Fibers per Subunit, quantity	12
Filler, quantity	3
Jacket Color	Black
Jacket Marking	Feet
Subunit Type	Gel-filled
Subunit, quantity	2
Total Fiber Count	24
Dimensions	
Buffer Tube/Subunit Diameter	1.6 mm   0.063 in
Diameter Over Jacket	5.5 mm   0.217 in

### Representative Image

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### 810008925/DB | B-024-LN-8W-F12NS/16G



### Material Specifications

**Jacket Material** 

High density polyethylene (HDPE)

Minimum Bend Radius, loaded	83 mm   3.268 in
Minimum Bend Radius, unloaded	55 mm   2.165 in
Tensile Load, long term, maximum	97 N   21.806 lbf
Tensile Load, short term, maximum	324 N   72.838 lbf
Compression	10 N/mm   57.101 lb/in
Compression Test Method	FOTP-41   IEC 60794-1 E3
Flex	25 cycles
Flex Test Method	FOTP-104   IEC 60794-1 E6
Impact	0.3 N-m   2.655 in lb
Impact Test Method	FOTP-25   IEC 60794-1 E4
Strain	See long and short term tensile loads
Strain Test Method	FOTP-33   IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	FOTP-85   IEC 60794-1 E7
Vertical Rise, maximum	492 m   1,614.173 ft
Optical Specifications	

#### Fiber Type

G.652.D and G.657.A1 | G.652.D and G.657.A1

### Environmental Specifications

Installation temperature

-30 °C to +70 °C (-22 °F to +158 °F)

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Operating Temperature	-30 °C to +70 °C (-22 °F to +158 °F)
Storage Temperature	-30 °C to +75 °C (-22 °F to +167 °F)
Cable Qualification Standards	IEC 60794-5-10
Environmental Space	Air-blown, microduct
Jacket UV Resistance	UV stabilized
Water Penentration	24 h
Water Penentration Test Method	FOTP-82   IEC 60794-1 F5

### **Environmental Test Specifications**

Cable Freeze	-2 °C   28.4 °F
Cable Freeze Test Method	FOTP-98   IEC 60794-1 F15
Drip	70 °C   158 °F
Drip Test Method	FOTP-81   IEC 60794-1 E14
Heat Age	-30 °C to +85 °C (-22 °F to +185 °F)
Heat Age Test Method	IEC 60794-1 F9
Low High Bend	-30 °C to +60 °C (-22 °F to +140 °F)
Low High Bend Test Method	FOTP-37   IEC 60794-1 E11
Temperature Cycle	-30 °C to +70 °C (-22 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3   IEC 60794-1 F1

#### Packaging and Weights

#### **Cable weight**

20 kg/km | 13.439 lb/kft

### Regulatory Compliance/Certifications

#### Classification

ISO 9001:2015

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Agency

### \* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

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