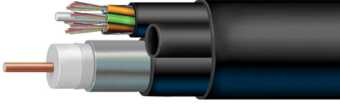


E20540JCASS-24CT MICFIBR-12.7MB DUCT

E20® Coaxial/Fiber/Microduct 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	29.718 mm 1.17 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	152.4 mm 6 in
Pulling Tension, maximum	33.112 kg 73 lb

Environmental Specifications

Environmental Space	Buried
----------------------------	--------

E20540JCASS-24CT MICFIBR-12.7MB DUCT

Packaging and Weights

Weight, gross 319.955 kg/km | 215 lb/kft

Regulatory Compliance/Certifications

Agency

ISO 9001:2015



Classification

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

Included Products

- | | | |
|---------------------------------------|---|--|
| 360000000
12.7MB DUCT EMPTY | - | ConQuest® Empty Conduit, 12.7 mm, black |
| 360000013
12.7MB DUCT EMPTY | - | ConQuest® Empty Conduit, 12.7 mm, black |
| 5510192
QR® 540 JCASS | - | 75 Ohm QR® Trunk and Distribution Cable, black PE jacket, flooded for underground |
| 810008925/DB
B-024-LN-8W-F12NS/16G | - | LightScope ZWP® Blown Micro Single Jacket All-Dielectric Outdoor Stranded Loose Tube Arid-Core® Construction Cable |

360000000 | 12.7MB DUCT EMPTY

ConQuest® Empty Conduit, 12.7 mm, black



Product Classification

Product Type	Empty conduit
Product Brand	ConQuest®

General Specifications

Color	Black
Conduit Type	Non-toneable
Density Test Method	ASTM D792A
Density, maximum	0.955 g/cm ³ 0.035 lb/in ³
Density, minimum	0.941 g/cm ³ 0.034 lb/in ³
Design Standard	ASTM D3350-05
Wall Type	Smooth

Dimensions

Inner Diameter, nominal	10.008 mm 0.394 in
Outer Diameter, nominal	12.7 mm 0.5 in
Wall Thickness, minimum	1.346 mm 0.053 in
Nominal Size	12.7 mm

Material Specifications

Flexural Modulus, minimum	551.581 N/mm ² 80000 psi
Flexural Property Test Method	ASTM D790
Hydrostatic Design Basis	Not pressure rated
Hydrostatic Design Test Method	ASTM D2837
Material Type	High density polyethylene (HDPE)

360000000 | 12.7MB DUCT EMPTY

Melt Flow Rate Test Method	ASTM D1238
Melt Flow Rate, maximum	0.39 g/10 min

Mechanical Specifications

Minimum Bend Radius, unsupported	152.4 mm 6 in
Tensile Property Test Method	ASTM D638
Tensile Strength at yield, minimum	20.684 N/mm ² 3000 psi
Pulling Tension, maximum	86.183 kg 190 lb

Environmental Specifications

Environmental Stress Crack Resistance	Failure rate of 10% within 96 hours
Environmental Stress Test Method	ASTM D1693, ESCR Condition B

Packaging and Weights

Weight, net	46.133 kg/km 31 lb/kft
--------------------	--------------------------

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



* Footnotes

Environmental Stress Crack Resistance ESCR—Environmental Stress Crack Resistance

360000013 | 12.7MB DUCT EMPTY

ConQuest® Empty Conduit, 12.7 mm, black



Product Classification

Product Type	Empty conduit
Product Brand	ConQuest®

General Specifications

Color	Black
Conduit Type	Non-toneable
Density Test Method	ASTM D792A
Density, maximum	0.955 g/cm ³ 0.035 lb/in ³
Density, minimum	0.941 g/cm ³ 0.034 lb/in ³
Design Standard	ASTM D3350-05
Wall Type	Smooth

Dimensions

Inner Diameter, nominal	10.008 mm 0.394 in
Outer Diameter, nominal	12.7 mm 0.5 in
Wall Thickness, minimum	1.346 mm 0.053 in
Nominal Size	12.7 mm

Material Specifications

Flexural Modulus, minimum	551.581 N/mm ² 80000 psi
Flexural Property Test Method	ASTM D790
Hydrostatic Design Basis	Not pressure rated
Hydrostatic Design Test Method	ASTM D2837
Material Type	High density polyethylene (HDPE)

360000013 | 12.7MB DUCT EMPTY

Melt Flow Rate Test Method	ASTM D1238
Melt Flow Rate, maximum	0.39 g/10 min

Mechanical Specifications

Minimum Bend Radius, unsupported	152.4 mm 6 in
Tensile Property Test Method	ASTM D638
Tensile Strength at yield, minimum	20.684 N/mm ² 3000 psi
Pulling Tension, maximum	86.183 kg 190 lb

Environmental Specifications

Environmental Stress Crack Resistance	Failure rate of 10% within 96 hours
Environmental Stress Test Method	ASTM D1693, ESCR Condition B

Packaging and Weights

Weight, net	46.133 kg/km 31 lb/kft
--------------------	--------------------------

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



* Footnotes

Environmental Stress Crack Resistance ESCR—Environmental Stress Crack Resistance

5510192 | QR® 540 JCASS

75 Ohm QR® Trunk and Distribution Cable, black PE jacket, flooded for underground



Product Classification

Product Type	Coaxial hardline cable
Product Brand	QR®

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)

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

5510192 | QR® 540 JCASS

2500.0	12.41	3.78
2700.0	13.03	3.97
3000.0	13.93	4.24

Material Specifications

Center Conductor Material	Copper-clad aluminum
Dielectric Material	Foam PE
Jacket Material	PE
Outer Conductor Material	Aluminum

Mechanical Specifications

Pulling Tension, maximum	99.79 kg 220 lb
---------------------------------	-------------------

Environmental Specifications

Corrosion Protection	Migraheal®
Environmental Space	Buried

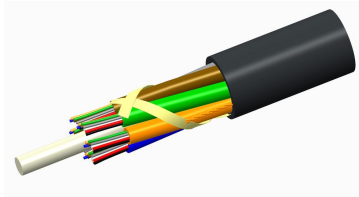
Packaging and Weights

Packaging Type	Reel
Weight, gross	178.58 kg/km 120 lb/kft

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system





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

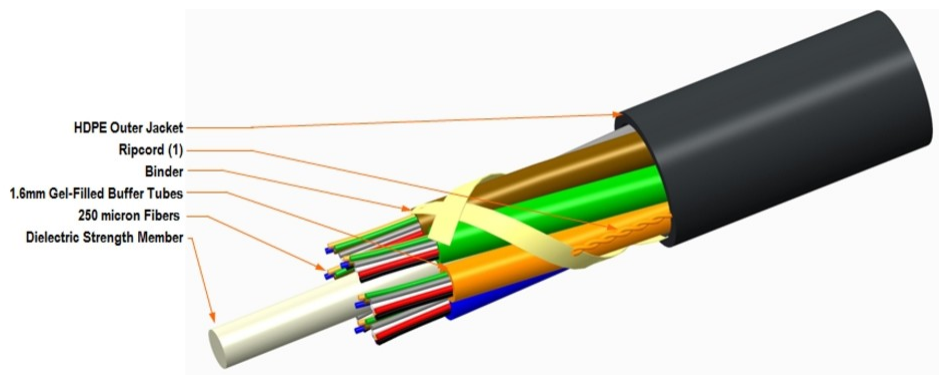
General Specifications

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



Material Specifications

Jacket Material High density polyethylene (HDPE)

Mechanical Specifications

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)

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 Penetration	24 h
Water Penetration 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

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable