E20-2" SDR13.5-715JCASS-24 CT MICFIBR-12.7MB

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 preinstalled in conduit
- Serves businesses in a new commercial serving area
- Mitigates future cost of fiber installation
- Pre-installed in high density PE conduit for added physical protection
- One-step installation saves on construction cost
- Ideal for commercial data customers that also require video
- All products tested to industry standards

OBSOLETE

Product Classification

Product Type	Coaxial fiber cable-in-conduit	
Product Brand	E2O®	
General Specifications		
Cable Series	QR 715	
Total Fiber Count	24	
Dimensions		
Height	60.325 mm 2.375 in	
Width	60.325 mm 2.375 in	
Outer Jacket Thickness, nominal	4.724 mm 0.186 in	
Material Specifications		
Outer Jacket Material	High density polyethylene (HDPE)	
Mechanical Specifications		
Minimum Bend Radius	660.4 mm 26 in	
Pulling Tension, maximum	1,170.268 kg 2580 lb	

Environmental Specifications

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E20-2" SDR13.5-715JCASS-24 CT MICFIBR-12.7MB

Environmental Space

Buried

Packaging and Weights

Weight, gross

1,186.067 kg/km | 797 lb/kft

Regulatory Compliance/Certifications

Agency

Classification

ISO 9001:2015

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



Included Products

36000000 12.7MB DUCT EMPTY	-	ConQuest® Empty Conduit, 12.7 mm, black
360000013 12.7MB DUCT EMPTY	-	ConQuest® Empty Conduit, 12.7 mm, black
5513592 QR® 715 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
CX3799839 200T135 EMPTY DUCT COEX	-	ConQuest® Empty Conduit, 2 in, SDR 13.5, terracotta



36000000 | 12.7MB DUCT EMPTY

Empty conduit

ConQuest®

ConQuest® Empty Conduit, 12.7 mm, black



Product Classification

Product Type

Product Brand

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

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)

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36000000 | 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/mm² 3000 psi	
Pulling Tension, maximum	86.183 kg 190 lb	
Environmental Specifications		
Environmental Stress Crack Resistance	Failure rate of 10% within 96 hour	
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		

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

hours



ISO 9001:2015

* Footnotes

Environmental Stress Crack Resistance ESCR-Environmental Stress Crack Resistence

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36000013 | 12.7MB DUCT EMPTY

Empty conduit

ConQuest®

ConQuest® Empty Conduit, 12.7 mm, black



Product Classification

Product Type

Product Brand

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)

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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/mm² 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 ka/km 31 lb/kft

Weight, net

46.133 kg/km | 31 lb/kft

Regulatory Compliance/Certifications

Agency

Classification

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



ISO 9001:2015

* Footnotes

Environmental Stress Crack Resistance ESCR-Environmental Stress Crack Resistence

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5513592 | QR® 715 JCASS

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

Coaxial hardline cable

QR®



Product Classification

Product Type

Product Brand

General Specifications

Cable Type	715 Series
Construction Type	Welded
Jacket Color	Black
Short Description	QR 715 JCASS SM PR997

Dimensions

Cable Length	914.4 m 3000 ft
Diameter Over Center Conductor, nominal	4.216 mm 0.166 in
Diameter Over Dielectric, nominal	17.424 mm 0.686 in
Diameter Over Jacket, nominal	19.939 mm 0.785 in
Diameter Over Outer Conductor, nominal	18.161 mm 0.715 in
Jacket Thickness, nominal	0.889 mm 0.035 in
Outer Conductor Thickness, nominal	0.368 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 $^\circ C$ (68 $^\circ F)$

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5513592 | QR® 715 JCASS

dc Resistance, Inner Conductor, nominal	1.903 ohms/km 0.58 ohms/kft
dc Resistance, Loop, nominal	3.281 ohms/km 1 ohms/kft
dc Resistance, Outer Conductor, nominal	1.378 ohms/km 0.42 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	0.36	0.11
55.0	1.21	0.37
85.0	1.51	0.46
204.0	2.4	0.73
211.0	2.43	0.74
250.0	2.66	0.81
300.0	2.92	0.89
350.0	3.18	0.97
400.0	3.44	1.05
450.0	3.67	1.12
500.0	3.9	1.19
550.0	4.1	1.25
600.0	4.3	1.31
750.0	4.89	1.49
865.0	5.31	1.62
1002.0	5.76	1.75
1218.0	6.43	1.96
1500.0	7.44	2.27
1794.0	8.3	2.53
1800.0	8.32	2.54
2000.0	8.88	2.71
2200.0	9.42	2.87

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5513592 | QR® 715 JCASS

	1 1	
2500.0	10.21	3.11
2700.0	10.72	3.27
3000.0	11.46	3.49
Material Specif	ications	
Center Conductor Mate	erial	Copper-clad aluminum
Dielectric Material		Foam PE
Jacket Material		PE
Outer Conductor Mate	rial	Aluminum
Mechanical Sp	ecifications	
Pulling Tension, maxin	num	154.221 kg 340 lb
Environmental	Specifications	
Corrosion Protection		Migraheal®
Environmental Space		Buried
Packaging and	Weights	
Packaging Type		Reel
Weight, gross		305.074 kg/km 205 lb/kft
Regulatory Cor	mpliance/Certifica	tions
Agency	Classification	
ISO 9001:2015	Designed, manufacture	ed and/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

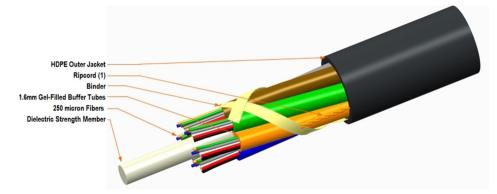
PortfolioCommScope®Product TypeFiber OSP cableProduct SeriesB-LN	Regional Availability	Asia Australia/New Zealand EMEA Latin America North America
Product Series B-LN	Portfolio	CommScope®
	Product Type	Fiber OSP cable
Conoral Specifications	Product Series	B-LN
	General Specifications	
Cable Type Stranded loose tube	Cable Type	Stranded loose tube
Construction Type Non-armored	Construction Type	Non-armored
Fiber Type, quantity24	Fiber Type, quantity	24
Fibers per Subunit, quantity12	Fibers per Subunit, quantity	12
Filler, quantity 3	Filler, quantity	3
Jacket Color Black	Jacket Color	Black
Jacket Marking Feet	Jacket Marking	Feet
Subunit Type Gel-filled	Subunit Type	Gel-filled
Subunit, quantity 2	Subunit, quantity	2
Total Fiber Count 24	Total Fiber Count	24
Dimensions	Dimensions	
Buffer Tube/Subunit Diameter1.6 mm 0.063 in	Buffer Tube/Subunit Diameter	1.6 mm 0.063 in
Diameter Over Jacket5.5 mm 0.217 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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810008925/DB | B-024-LN-8W-F12NS/16G

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

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



Agency

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

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CX3799839 | 200T135 EMPTY DUCT COEX

ConQuest® Empty Conduit, 2 in, SDR 13.5, terracotta



Hydrostatic Design Basis

Product Classification	
Product Type	Empty conduit
Product Brand	ConQuest®
General Specifications	
Color	Terracotta
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	
Length	762 m 2500 ft
Inner Diameter, nominal	50.876 mm 2.003 in
Outer Diameter, nominal	60.325 mm 2.375 in
Wall Thickness Designation	SDR 13.5
Wall Thickness, minimum	4.47 mm 0.176 in
Nominal Size	2 in
Material Specifications	
Flexural Modulus, minimum	551.581 N/mm² 80000 psi

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Not pressure rated



CX3799839 | 200T135 EMPTY DUCT COEX

Hydrostatic Design Test Method	ASTM D2837
Material Type	High density polyethylene (HDPE)
Melt Flow Rate Test Method	ASTM D1238
Melt Flow Rate, maximum	0.39 g/10 min

Mechanical Specifications

Minimum Bend Radius, unsupported	660.4 mm 26 in
Tensile Property Test Method	ASTM D638
Tensile Strength at yield, minimum	20.684 N/mm² 3000 psi
Pulling Tension, maximum	1,170.268 kg 2580 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

791.703 kg/km | 532 lb/kft

Regulatory Compliance/Certifications

Agency

ISO 9001:2015

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



* Footnotes

Environmental Stress Crack Resistance ESCR-Environmental Stress Crack Resistence

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