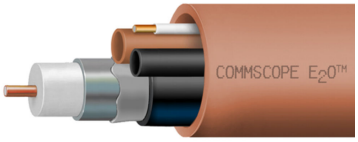
530093104 | E2O-2" SDR13.5-875JCASS-16MT-12.7MB-TW

E2O® Coaxial/Microduct Hybrid Buried Cable



- E2O is a solution that enables service providers the ability to bridge HFC networks to FTTx. The E2O 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

Product Classification

Product Type	Coaxial fiber cable-in-conduit
Product Brand	E2O®

General Specifications

Cable Series	P3 875

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

Environmental Space	Buried

Packaging and Weights

Weight, gross	1,285.774 kg/km | 864 lb/kft

530093104 | E2O-2" SDR13.5-875JCASS-16MT-12.7MB-TW

Regulatory Compliance/Certifications

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

Included Products

359998100 16MT DUCT EMPTY	–	ConQuest® Empty Conduit, 16 mm, SDR 11, terracotta
359998400 16MT DUCT EMPTY	–	ConQuest® Empty Conduit, 16 mm, SDR 11, terracotta
360000000 12.7MB DUCT EMPTY	–	ConQuest® Empty Conduit, 12.7 mm, black
360000013 12.7MB DUCT EMPTY	–	ConQuest® Empty Conduit, 12.7 mm, black
5309103 P3® 875 JCASS	–	75 Ohm P3® Trunk and Distribution Cable, black PE jacket, flooded for underground
5309193 P3® 875 JCASS	–	75 Ohm P3® Trunk and Distribution Cable, black PE jacket, flooded for underground
8220001 PP Coated Tone Wire 0.0403 CCS	–	E2O® Coaxial/Microduct Hybrid Buried Cable
CX3799839 200T135 EMPTY DUCT COEX	–	ConQuest® Empty Conduit, 2 in, SDR 13.5, terracotta

359998100 | 16MT DUCT EMPTY

ConQuest® Empty Conduit, 16 mm, SDR 11, terracotta

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/cm³ | 0.035 lb/in³
Density, minimum	0.941 g/cm³ | 0.034 lb/in³
Design Standard	ASTM D3350-05
Wall Type	Smooth

Dimensions

Length	1,828.8 m | 6000 ft
Inner Diameter, nominal	12.725 mm | 0.501 in
Outer Diameter, nominal	15.875 mm | 0.625 in
Wall Thickness Designation	SDR 11
Wall Thickness, minimum	1.397 mm | 0.055 in
Nominal Size	16 mm

Material Specifications

Flexural Modulus, minimum	551.581 N/mm² | 80000 psi
Flexural Property Test Method	ASTM D790
Hydrostatic Design Basis	Not pressure rated
Hydrostatic Design Test Method	ASTM D2837

359998100 | 16MT DUCT EMPTY

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	203.2 mm | 8 in
Tensile Property Test Method	ASTM D638
Tensile Strength at yield, minimum	20.684 N/mm² | 3000 psi
Pulling Tension, maximum	95.254 kg | 210 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	68.456 kg/km | 46 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 Resistence

359998400 | 16MT DUCT EMPTY

ConQuest® Empty Conduit, 16 mm, SDR 11, terracotta

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/cm³ | 0.035 lb/in³
Density, minimum	0.941 g/cm³ | 0.034 lb/in³
Design Standard	ASTM D3350-05
Wall Type	Smooth

Dimensions

Inner Diameter, nominal	12.725 mm | 0.501 in
Outer Diameter, nominal	15.875 mm | 0.625 in
Wall Thickness Designation	SDR 11
Wall Thickness, minimum	1.397 mm | 0.055 in
Nominal Size	16 mm

Material Specifications

Flexural Modulus, minimum	551.581 N/mm² | 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)

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

Mechanical Specifications

Minimum Bend Radius, unsupported	203.2 mm | 8 in
Tensile Property Test Method	ASTM D638
Tensile Strength at yield, minimum	20.684 N/mm² | 3000 psi
Pulling Tension, maximum	95.254 kg | 210 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	68.456 kg/km | 46 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 Resistence

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/cm³ | 0.035 lb/in³
Density, minimum	0.941 g/cm³ | 0.034 lb/in³
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/mm² | 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)
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 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 Resistence

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/cm³ | 0.035 lb/in³
Density, minimum	0.941 g/cm³ | 0.034 lb/in³
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/mm² | 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)
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 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 Resistence

5309103 | P3® 875 JCASS

75 Ohm P3® Trunk and Distribution Cable, black PE jacket, flooded for underground

Product Classification

Product Type	Coaxial hardline cable
Product Brand	P3®
Warranty	One year

General Specifications

Cable Type	875 series
Construction Type	Swaged
Jacket Color	Black
Short Description	P3 875 JCASS SM PR997

Dimensions

Cable Length	762 m | 2500 ft
Diameter Over Center Conductor, nominal	4.928 mm | 0.194 in
Diameter Over Dielectric, nominal	20.244 mm | 0.797 in
Diameter Over Jacket, nominal	24.257 mm | 0.955 in
Diameter Over Outer Conductor, nominal	22.225 mm | 0.875 in
Jacket Thickness, nominal	0.889 mm | 0.035 in
Outer Conductor Thickness, nominal	0.991 mm | 0.039 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)

dc Resistance, Inner Conductor, nominal	1.378 ohms/km | 0.42 ohms/kft
dc Resistance, Loop, nominal	1.804 ohms/km | 0.55 ohms/kft
dc Resistance, Outer Conductor, nominal	0.427 ohms/km | 0.13 ohms/kft
Jacket Spark Test Voltage	5000 Vac
Nominal Velocity of Propagation (NVP)	87 %
Operating Frequency Band	5–3000 MHz
Structural Return Loss	26 dB @ 1002–1218 MHz | 30 dB @ 5–1002 MHz

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
5.0	0.3	0.09
55.0	1.08	0.33
83.0	1.35	0.41
85.0	1.31	0.4
204.0	2.07	0.63
211.0	2.17	0.66
250.0	2.36	0.72
300.0	2.56	0.78
350.0	2.76	0.84
400.0	2.99	0.91
450.0	3.18	0.97
500.0	3.38	1.03
550.0	3.54	1.08
600.0	3.74	1.14
750.0	4.23	1.29
865.0	4.63	1.41
1000.0	4.99	1.52
1002.0	5.03	1.53
1218.0	5.57	1.7
1300.0	5.78	1.76
1400.0	6.03	1.84
1500.0		
1600.0	6.27	1.91
1700.0	6.74	2.05
1794.0	6.95	2.12

1800.0	7.02	2.14
2000.0	7.4	2.26
2200.0	7.82	2.38
2400.0	8.23	2.51
2600.0	8.63	2.63
2800.0	9.02	2.75
3000.0	9.39	2.86

Material Specifications

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

Mechanical Specifications

Minimum Bend Radius, bonded	177.8 mm | 7 in
Pulling Tension, maximum	396.893 kg | 875 lb

Environmental Specifications

Corrosion Protection	Migraheal®
Environmental Space	Buried

Packaging and Weights

Packaging Type	Reel
Weight, gross	505.976 kg/km | 340 lb/kft

Regulatory Compliance/Certifications

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

5309193 | P3® 875 JCASS

75 Ohm P3® Trunk and Distribution Cable, black PE jacket, flooded for underground

Product Classification

Product Type	Coaxial hardline cable
Product Brand	P3®
Warranty	One year

General Specifications

Cable Type	875 series
Construction Type	Swaged
Jacket Color	Black
Short Description	P3 875 JCASS SM PR997

Dimensions

Cable Length	762 m | 2500 ft
Diameter Over Center Conductor, nominal	4.928 mm | 0.194 in
Diameter Over Dielectric, nominal	20.244 mm | 0.797 in
Diameter Over Jacket, nominal	24.257 mm | 0.955 in
Diameter Over Outer Conductor, nominal	22.225 mm | 0.875 in
Jacket Thickness, nominal	0.889 mm | 0.035 in
Outer Conductor Thickness, nominal	0.991 mm | 0.039 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)

dc Resistance, Inner Conductor, nominal	1.378 ohms/km | 0.42 ohms/kft
dc Resistance, Loop, nominal	1.804 ohms/km | 0.55 ohms/kft
dc Resistance, Outer Conductor, nominal	0.427 ohms/km | 0.13 ohms/kft
Jacket Spark Test Voltage	5000 Vac
Nominal Velocity of Propagation (NVP)	87 %
Operating Frequency Band	5–3000 MHz
Structural Return Loss	26 dB @ 1002–1218 MHz | 30 dB @ 5–1002 MHz

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
5.0	0.3	0.09
55.0	1.08	0.33
83.0	1.35	0.41
85.0	1.31	0.4
204.0	2.07	0.63
211.0	2.17	0.66
250.0	2.36	0.72
300.0	2.56	0.78
350.0	2.76	0.84
400.0	2.99	0.91
450.0	3.18	0.97
500.0	3.38	1.03
550.0	3.54	1.08
600.0	3.74	1.14
750.0	4.23	1.29
865.0	4.63	1.41
1000.0	4.99	1.52
1002.0	5.03	1.53
1218.0	5.57	1.7
1300.0	5.78	1.76
1400.0	6.03	1.84
1500.0		
1600.0	6.27	1.91
1700.0	6.74	2.05
1794.0	6.95	2.12

1800.0	7.02	2.14
2000.0	7.4	2.26
2200.0	7.82	2.38
2400.0	8.23	2.51
2600.0	8.63	2.63
2800.0	9.02	2.75
3000.0	9.39	2.86

Material Specifications

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

Mechanical Specifications

Minimum Bend Radius, bonded	177.8 mm | 7 in
Pulling Tension, maximum	396.893 kg | 875 lb

Environmental Specifications

Corrosion Protection	Migraheal®
Environmental Space	Buried

Packaging and Weights

Packaging Type	Reel
Weight, gross	505.976 kg/km | 340 lb/kft

Regulatory Compliance/Certifications

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

8220001 | PP Coated Tone Wire 0.0403 CCS

E2O® Coaxial/Microduct Hybrid Buried Cable

- E2O is a solution that enables service providers the ability to bridge HFC networks to FTTx. The E2O 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

Product Classification

Product Type	Coaxial fiber cable-in-conduit
Product Brand	E2O®

General Specifications

Conductor Elongation, maximum	1 %
Conductor Type	Solid
Insulation Elongation, minimum	200 %

Dimensions

Conductor Diameter	1.024 mm | 0.04 in
Insulation Thickness, nominal	0.008 mm | 0 in
Conductor Gauge	18 AWG

Electrical Specifications

Conductor Resistance	87.598 ohms/km | 26.7 ohms/kft

Material Specifications

Insulation Material Type	Polypropylene coated copper-clad steel wire
Outer Jacket Material	High density polyethylene (HDPE)

Mechanical Specifications

Conductor Tensile Strength, minimum	827.371 N/mm² | 120000 psi
Insulation Tensile Strength, minimum	31.026 N/mm² | 4500 psi

Environmental Specifications

Environmental Space	Buried

Regulatory Compliance/Certifications

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

CX3799839 | 200T135 EMPTY DUCT COEX

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

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/cm³ | 0.035 lb/in³
Density, minimum	0.941 g/cm³ | 0.034 lb/in³
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
Flexural Property Test Method	ASTM D790
Hydrostatic Design Basis	Not pressure rated
Hydrostatic Design Test Method	ASTM D2837

CX3799839 | 200T135 EMPTY DUCT COEX

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

* Footnotes

Environmental Stress Crack Resistance ESCR—Environmental Stress Crack Resistence