

FIBER OPTIC CABLE

Product Specifications

Part No: 40-27XXX76BABS-XX/XXDE

40-27-Series Micro Distribution Fiber Optic Cable with Insulated Copper Conductors & Outer Flame Retardant PVC Jacket

Scope

This document establishes the specification requirements for a composite cable consisting of insulated stranded bare copper conductor(s) in 16 or 18awg along with (4, 6 or 8 fibers) OS2 245 μ m fibers under a flame retardant PVC jacket.

Applications

Indoors / Outdoors in duct or aerial lashed, low voltage communication applications. Approved for use with Digital Electricity platforms.

Applicable Documents

- •TIA/EIA FOTP Standards 455
- •Color Coding of Fiber Optic Cables TIA/EIA-598
- •Compliant with ANSI/TIA-568-C.3 standard
- •Compliant with OFNR / FT-4 Requirements

Construction Details (Copper Leg)

- •Conductor: 16AWG or 18WG stranded bare copper
- •Insulation Material: Flame Retardant Polyvinyl Chloride
- •Nominal Insulation Thickness: See table on page 2.
- •Nominal Insulation Diameter: See table on page 2.
- •Conductor Color Code: Blue, Orange, Green Brown, Black & White

Electrical Details (conductors)

Maximum Operating Voltage: 300 Volts, rms.

Nominal Mutual Capacitance: 35.0 pF/ft @ 1 kHz

Upper Limit Capacitance: 40.0 pF/ft @ 1kHz

Nominal D.C.R.: 18AWG: 4.71Ω / 1,000 feet @ 20° C Nominal D.C.R.: 16AWG: 3.74Ω / 1,000 feet @ 20° C

Issue Date: 11/04/2021 Revision #: 01 CSM Water Swellable Yarns Insulated Conductor Rip Cord Tape Wrap Strength Member Micro Dist. Sub Unit Outer Jacket

Cable Cross Section

Construction Details (Fiber Leg)

- •Fiber Dimension: 245µm, Nominal
- •Fiber Color Code: As per TIA/EIA-598 standard
- •Sub Unit Construction: Water swellable aramid yarns are pulled in with fibers under a sub-unit jacket. Nominal OD is 2.0mm on the 18awg design and 2.26mm on the 16awg design

Overall Construction Details

- •Construction Type: Copper conductors and the fiber unit are pulled in and cabled around an epoxy glass rod (up-coated as required per construction) and cabled together using a reverses oscillation. Binders and tape wrap will be applied over the cable core.
 - •Cable Strength:
 - Circumferential strength members are placed over the tape wrap and under the outer sheath.
 - •Jacket Material: Flame retardant polyvinyl chloride
 - •Overall Sheath Color: UV-Black
- •Surface Print: ACTIVATETM by REMEE 40/27M-SERIES FIBER OPTIC CABLE XX (No. of Fibers)-SM BIF-OS2 OFNR / FT-4 (No. of Conductors)/ (AWG size) OUTDOOR MM/YY (Month & Year of Manufacture) MADE IN THE USA (Lot #) + Sequential Footage Marking

All warranty information can be viewed at WWW.REMEE.COM

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			Nomin	al Cable Di	mensions	& Weights				
Remee Products Part Number	Number of Conductors and AWG	D.C.R. Ω/Mft	Nom. Insul. Thick (in)	Nom. Dia. Over Insul. (in.)	Number of Fibers	Nom Dia. Over Fiber Unit. (in.)	Nominal Overall Dimensions in.	Nominal Overall Dimensions mm	Weight lb/1000ft	Weight Kg/km
40-27M00476BABS-16/2DE	2C 16	4.39	0.016	0.089	4	0.089	0.350	8.9	72	107
40-27M00476BABS-18/2DE	2C 18	5.80	0.014	0.078	4	0.078	0.321	8.2	59	89
40-27M00676BABS-16/4DE	2C 16	4.39	0.016	0.089	6	0.089	0.350	8.9	85	127
40-27M00676BABS-18/4DE	2C 18	5.80	0.014	0.078	6	0.078	0.321	8.2	69	102
40-27M00876BABS-16/6DE	6C 16	4.39	0.016	0.089	8	0.089	0.413	10.5	132	196
40-27M00876BABS-18/6DE	6C 18	5.80	0.014	0.078	8	0.078	0.376	9.6	99	147
*Cables printed in meters will have a "-MR" suffix on the part number.										

Fiber Type (P/N)	Maximum Attenuation dB/km				Overfill Launch Min Bandwidth (MHz-km)		EMBc (MHz-km)	Gigabit Ethernet Mini- mum Link Distance (Meters)		10 Gigabit Ethernet Minimum Link Dis- tance (Meters)	
	850 nm	1300 nm	1310 nm	1550 nm	850 nm	1300 nm		850 nm	1300 nm	850 nm	1300 nm
SM OS2 G.652.D/G.657.A1 BIF (76B)*	N/A	N/A	0.40	0.30	N/A	N/A	N/A	N/A	5000	N/A	10000

^{*} G.652d&G.657.A1 (76B) Mandrel Radius of 10mm, 1 turn at 1550nm with an induced attenuation of ≤0.50dB (76U is Corning Ultra)& 76B is Pyrsmian Bendbright)

Measured attenuations on shipping reels will not exceed the nominal values by 0.75 dB/km

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Mechanical & Environmental Performance

•Maximum Tensile Load Installation: 2700N / 607lbf Long Term: 890N / 200lbf

•Minimum Bending Radius Loaded : 20 x Diameter Unloaded : 15 x Diameter

•Crush Resistance 220 N/cm

•Impact Resistance (min.) 25 Impacts

•Flexing ± 90° (min.) 25 Cycles

•Temperature Rating

Operation : -40°C to +70°C Installation : -20°C to +55°C Storage : -40°C to +70°C

Warranty Information

All warranty information can be viewed at www.remee.com. This product is RoHS compliant and is directive 2002/95/EC. It is the sole responsibility of the user to have the most current specification. Specifications are subject to change without notice.

Preparation for Shipment

The cable shall be packaged to preclude the inducement of damage due to handling and transportation, and shall be in accordance with the best commercial practices available. Shipping containers shall be constructed as to eliminate any possible damage to the cables due to shipment.

Note: While Remee Products Corp. has made every reasonable effort to ensure the accuracy of the information in this document. Remee Products Corp. reserves the right to make any adjustments to the information contained herein at any time without notice. Remee Products Corp. expressly disclaims all implied warranties regarding the information contained herein, including but not limited to, any implied warranties of merchantability or fitness for particular purpose. The dimensions in this documents are for reference purposes only and are subject to change without notice.

Spec Approval (Custom Designs Only)

Your signature constitutes that you have read and agreed to this specification sheet and upon confirmation of your order. The Remee Wire & Cable warranty is an integral part of this specification. This item may be non-cancelable and non-returnable.

Signature:	Date:

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