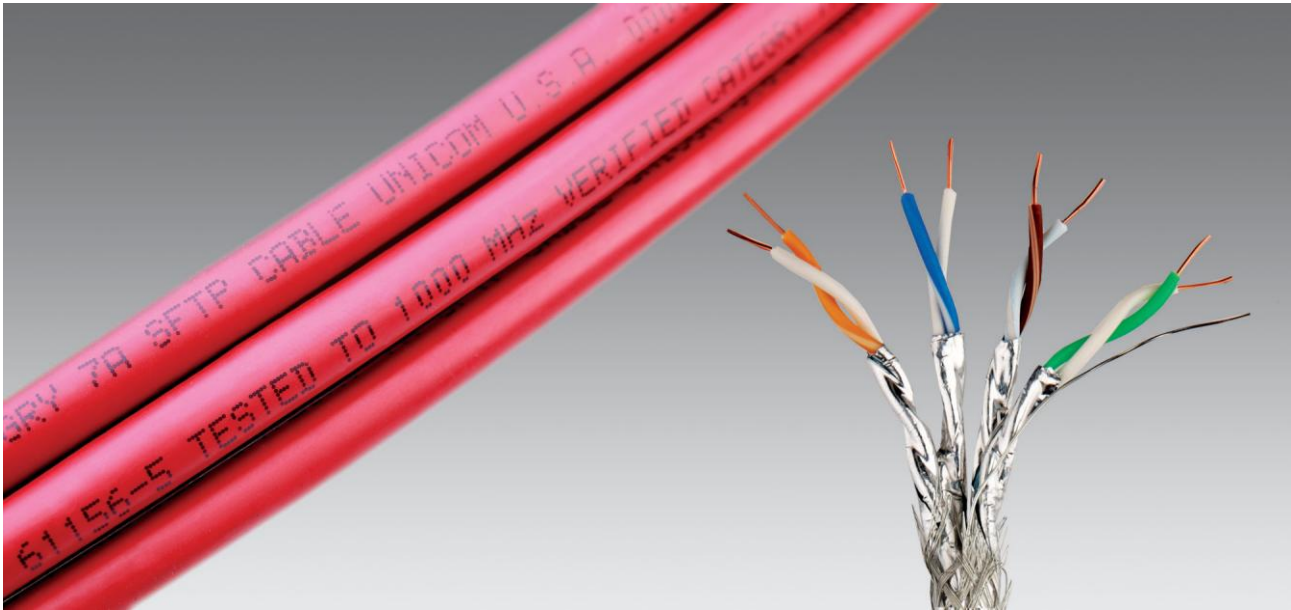


Category 7A Cable [UC-CABS7A]



Description

UNICOM's CABS7A cable provides the market with a cost effective, high-bandwidth and high performance cabling. As next generation cable, it is capable of meeting the demanding requirements for 10 gigabit Ethernet (10GBASE-T) as well as migration to 40 gigabit Ethernet (40GBASE-T). This breakthrough cable technology has been specifically designed to reduce "alien-crosstalk" and its effect on 10/40GBASE-T networks. Alien crosstalk is the coupling interference that comes from nearby cables or other electrical devices. Alien crosstalk has been defined by IEEE as the dominant noise source that will affect 10/40GBASE-T performance. It is a 4 pair cable 23 AWG with pairs individually shielded with foil and the twisted pairs are additionally enclosed as a group in a braided shield (SFTP) to provide superior shielding performance. This cable is designed for applications up to 1000 MHz and provides transmission performance meeting Augmented Category 7 specifications and is a good choice for supporting applications high bandwidth such as: requiring cloud computing, data centers, server farms, storage area networks, and campus backbones.

Features

- Easy migration to 40GBASE-T networks by changing patch cords & handling the next generation network applications
- Capable of supporting 10GBASE-T networks
- Power sum characterization gives highest performance using existing applications
- Provides additional bandwidth required for future applications
- Capable of handling Multimedia, broadband and baseband video signals

Applications

- IEEE 802.3: 40GBaset-T, 10GBase-T, 1000Base-T (Gigabit Ethernet), 100Base-TX, 10Base-T
- 2.4/1.2 Gbps ATM
- 4/16 Mbps Token Ring
- ANSI X3.263: 100 Mbps
- 3D imaging, Broadband & Baseband analog video
- Digital Video

Standard Compliances

- Category 7A
- ANSI/TIA-568-C.2
- ISO/IEC 11801 Class FA
- IEC/PAS 61156-5

- UL

Technical Characteristics

- Conductor resistance ($\Omega/100m$ @ 20°C): 9.5
 - DC resistance unbalance (%): 4
 - Pair-to-ground capacitance unbalance (pF/100m): 1600
 - Insertion Loss (dB/100m): $1.8 * \sqrt{f} + 0.005 * f + 0.25/\sqrt{f}$
 - Pair to Pair NEXT (dB/100m): $105.4 - 15 * \log(f)$
 - PowerSum pr-pr NEXT (dB/100m): $102.4 - 15 * \log(f)$
 - ELFEXT (dB/100m): $95.3 - 20 * \log(f)$
 - PowerSum ELFEXT (dB/100m): $92.3 - 20 * \log(f)$
 - Return Loss (dB): $20 + 5 * \log(f)$ $1 < f < 10MHz$
 25 $10 < f < 20MHz$
 $25 - 7 * \log(f / 20)$ $20 < f < 250MHz$
 17.3 $250 < f < 600MHz$
 $17.3 - 10 * \log(f / 600)$ $600 < f < 1000MHz$
 - Propagation Delay (ns/100m): $534 + 36 / \sqrt{f}$
 - Input Impedance (Ω): $100 \pm 15\%$ $1 < f < 250MHz$ $100 \pm 22\%$ $f > 250MHz$
- *Values greater than 75dB shall be converted to 75dB

Freq.	Ins. Loss Max.	RL (dB) Min.	Pair to Pair		Power Sum		Delay Skew (ns/100m) Max.	Po. Delay (ns/100) Max.
			NEXT	ELFEXT	NEXT	ELFEXT		
			(dB/100m)		(dB/100m)			
			Min.	Min.	Min.	Min.		
1	-	20	-	-	-	-	-	-
4	3.7	23	75	75	75	75	25	552
10	5.8	25	75	75	75	72.3	25	545.4
16	7.3	25	75	71.2	75	68.2	25	543
20	8.2	25	75	69.3	75	66.3	25	542
31.25	10.3	23.6	75	65.4	75	62.4	25	540.4
62.5	14.6	21.5	75	59.4	75	56.4	25	538.6
100	18.5	20.1	75	55.3	72.4	52.3	25	537.6
200	26.5	18	70.9	49.3	67.9	46.3	25	536.5
250	29.7	17.3	69.4	47.3	66.4	44.3	25	536.3
350	35.4	17.3	67.2	44.4	64.2	41.4	25	535.9
400	38	17.3	66.4	43.3	63.4	40.3	25	535.8
500	42.8	17.3	64.9	41.3	61.9	38.3	25	535.6
600	47.1	17.3	63.7	39.7	60.7	36.7	25	535.5
700	51.1	16.6	62.7	38.4	59.7	35.4	25	535.4
900	58.5	15.5	61.1	36.2	58.1	33.2	25	535.2
1000	61.9	15.1	60.4	35.3	57.4	32.3	25	535.1



Category 7A Solid S-FTP

Ordering code*	Description
UC-CABS7A	Category 7A Solid S-FTP Cable

*Orders are taken 1000 feet measurement.