

F/UTP Category 6

Tested to 550 MHz

F/UTP is a foil backed shield over the cable core with a drain wire under the foil shield. This cable is tested to 550 MHz and third party verified to category 6.

With Mohawk's FlexWeb® construction, the cable isolates the pairs throughout the length of the cable, while providing a round installer-friendly cable.

- **25 Year Warranty***
- **24 dB Minimum ACR @ 100 MHz** – Proven support for Gigabit Ethernet / 1000BASE-T / IEEE 802.3ab, ATM up to 155 Mbps, 100 Mbps Fast Ethernet / 100BASE-T / IEEE 802.3, ANSI.X3.263 FDDI TP-PMD, Ethernet / 10BASE-T / IEEE 802.3, 4 & 16 Mbps Token Ring / IEEE 802.5, T1/E1, xDSL, ISDN, 550 MHz Broadband Video and standards under development such as ATM at 622 Mbps, 1.2 and 2.4 Gbps.
- **9 dB Minimum** – Improvement in Near End Crosstalk vs. standard Category 5e NEXT.

- **.30 ns/meter Maximum Skew** – Tightly controlled propagation delay.
- 100% insulation (plenum)
- **Enhanced Performance Parameters** – All electrical characteristics proven to exceed TIA/EIA-568-B.2-1 and ISO/IEC 11801 Category 6 requirements: NEXT and ELFEXT (Pair-to-Pair and Power Sum), Insertion Loss, Return Loss, and Delay Skew.
- **Use All Shielded Components for a Shielded or Screened System** – Mohawk strongly recommends the use of shielded or screened connecting hardware, and all shielded or screened cords: patch, work area and equipment cords should be used throughout the structured cabling system.
- This cable and/or its manufacture are covered by US Patent Nos. 6,596,944, 6,074,503 and 5,424,491.

*Warranty available with MAC and System MATE® programs.

Electrical Characteristics

STANDARDS:
EXCEEDS TIA/EIA-568-B.2-1 CAT 6 & ISO/IEC 11801:2002 CAT 6 HORIZONTAL CABLE

CONDUCTOR DCR:
7.8 Ω /100m (23.8 Ω /Mft) MAX

DCR UNBALANCE:
3% MAX

MUTUAL CAPACITANCE:
46 pF/m (14 pF/ft) NOM

CAPACITANCE UNBALANCE PAIR/GROUND:
66 pF/100m (200 pF/Mft) MAX

CHARACTERISTIC IMPEDANCE:
100 Ω \pm 15% (1-300 MHz)

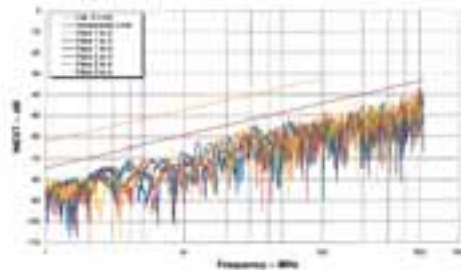
INPUT IMPEDANCE:
100 Ω \pm 15% (1-100 MHz)
100 Ω \pm 22% (>100-200 MHz)
100 Ω \pm 32% (>200-350 MHz)

PROPAGATION DELAY:
534 + 36/ \sqrt{f} ns/100m MAX

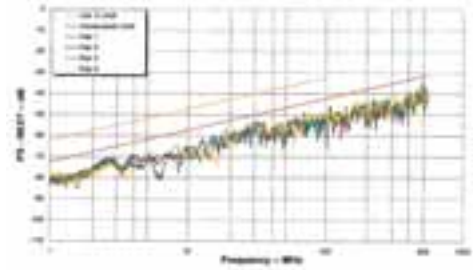
DELTA DELAY (SKEW):
30 ns/100m MAX

NOMINAL VELOCITY OF PROPAGATION (NVP):
PLENUM 72%
NON-PLENUM 68%

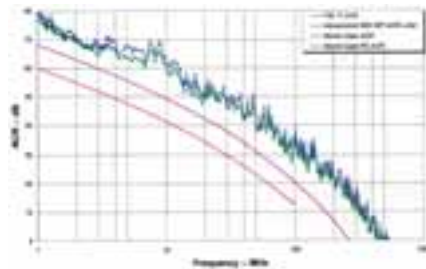
Near End Crosstalk (NEXT)



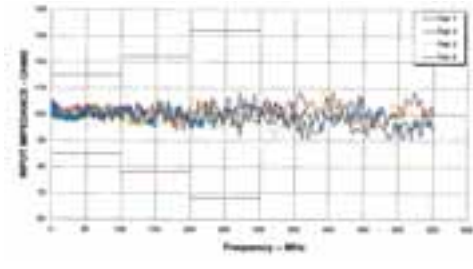
Power Sum NEXT (PS NEXT)



Worst Case ACR and Power Sum ACR



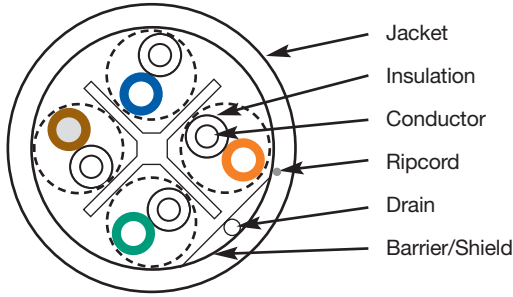
Input Impedance



Safety listed to NEC (NFPA 70)



Verified by ETL to TIA/EIA-568-B.2-1



Jacket Colors for 4-Pair Non-Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
WHITE	M58155	GREEN	M58160
BLUE	M58156	RED	M58161
PINK	M58157	ORANGE	M58162
YELLOW	M58158	BLACK	M58163
GRAY	M58159	VIOLET	M58164

Jacket Colors for 4-Pair Plenum

Jacket Color	Mohawk #	Jacket Color	Mohawk #
WHITE	M58175	GREEN	M58180
BLUE	M58176	RED	M58181
PINK	M58177	ORANGE	M58182
YELLOW	M58178	BLACK	M58183
GRAY	M58179	VIOLET	M58184

Custom colors available; please consult the factory.

FREQ (MHz)	INSERTION LOSS (dB/100m)		NEXT (dB/1000ft)		ACR (dB/100m)	PS-NEXT (dB/100m)		PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)	RL (dB/100m)
	avg	max	avg	min	min	avg	min	min	min	min	min
.772	1.7	1.8	86	76.0	74.2	80	74.0	72.2	-	-	-
1.0	1.9	2.0	82	74.3	72.3	75	72.3	70.3	70.0	68.0	20.0
4.0	3.6	3.8	73	65.3	61.5	65	63.3	59.5	58.0	56.0	23.0
8.0	5.0	5.3	69	60.8	55.5	61	58.8	53.5	51.9	49.9	24.5
10.0	5.6	6.0	67	59.3	53.3	60	57.3	51.3	50.0	48.0	25.0
16.0	7.1	7.6	66	56.2	48.6	58	54.2	46.6	45.9	43.9	25.0
20.0	7.9	8.5	64	54.8	46.3	56	52.8	44.3	44.0	42.0	25.0
25.0	8.9	9.5	63	53.3	43.8	54	51.3	41.8	42.0	40.0	24.3
31.25	10.0	10.7	62	51.9	41.2	53	49.9	39.2	40.1	38.1	23.6
62.5	14.4	15.4	58	47.4	32.0	49	45.4	30.0	34.1	32.1	21.5
100.0	18.5	19.8	54	44.3	24.5	45	42.3	22.5	30.0	28.0	20.1
155.0	23.6	25.2	52	41.4	16.2	43	39.4	14.2	26.2	24.2	18.8
200.0	27.1	29.0	50	39.8	10.8	42	37.8	8.8	24.0	22.0	18.0
250.0	30.7	32.8	49	38.3	5.5	40	36.3	3.5	22.0	20.0	17.3
300.0	34.0	36.4	48	37.1	0.7	39	35.1	-	20.5	18.5	16.8
350.0	37.2	39.8	47	36.1	-	38	34.1	-	19.1	17.1	16.3
400.0	40.2	43.0	46	35.3	-	37	33.3	-	18.0	16.0	15.9
500.0	45.7	48.9	45	33.8	-	36	31.8	-	16.0	14.0	15.2
550.0	48.4	51.8	44	33.2	-	35	31.2	-	-	-	14.9

Values above 250 MHz are for engineering information only.

Mohawk Part No.	Cable Type	Dielectric Type	Jacket Type Diameter		Weight		Listings
			inch	mm	lbs/M'	kg/km	
M58155 Non-Plenum	4 PAIR 23 AWG F/UTP	Thermoplastic	White PVC .265	6.73	44	65	C(UL)US CMR
M58175 Plenum	4 PAIR 23 AWG F/UTP	FEP	White ThermoPlen®* .255	6.48	49	73	C(UL)US CMP

*Plenum rated Thermoplastic. For pair colors see chart A on page 64.

