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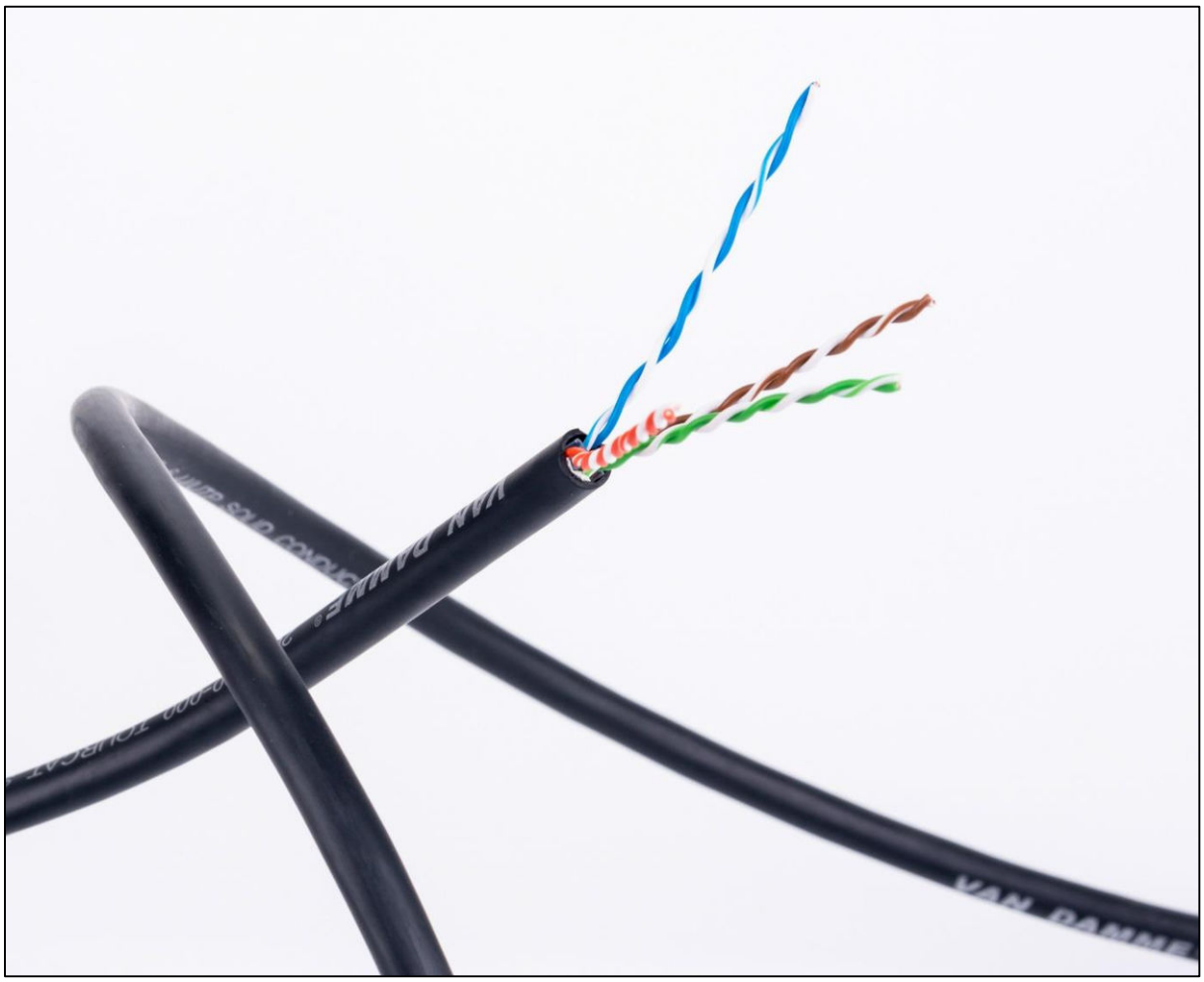
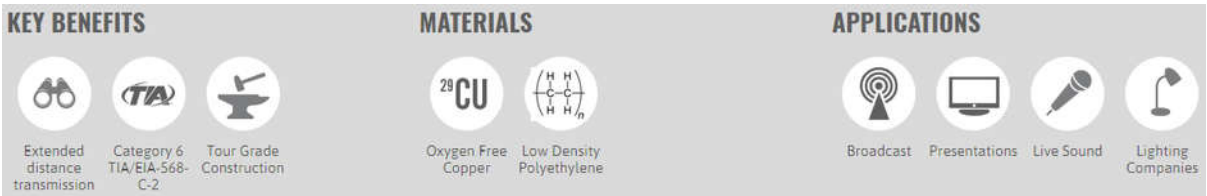
VAN DAMME CAT 6 TOURCAT SINGLE CABLES



Van Damme Category 6 U/UTP unscreened and SF/UTP screened TourCat cables have upgraded performance for long distance transmission. Both cables have solid conductors with low density polyolefin insulation and a polyethylene central cross member. Suitable for Gigabit and 100Mbit data and Ethernet based digital audio & video transmissions to the maximum length shown in the Application Notes.



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Applications

- Extended distance touring cables for Ethernet and Ethernet based protocols
- Ideal for use with the Neutrik NE8 Ethercon cable carrier

Application Notes

- Polyethylene cross member and TPV jacket ensure protection for the solid conductors in dynamic use
- Meets the requirements of Category 6 TIA/EIA-568-C-2, EN 50288-2-2 and ISO/IEC 11801
- Suitable for Gigabit and 100 Mbit to a maximum recommended channel link distance of 105 metres (U/UTP) or 77 metres (SF/UTP). Tested using a Fluke cable verifier. Longer runs are possible but are not guaranteed.

Mechanical Specification

Conductor	1 x 0.574 mm bare oxygen free copper
Conductor Size	1 x 0.574 mm, 0.259 mm^2, AWG 23
Dielectric	Low density polyolefin (PE-LD)
Diameter	1.05 ± 0.07 mm
Colour Code	Pair 1: White/Blue-Blue, Pair 2: White/Orange-Orange, Pair 3: White/Green-Green, Pair 4 White/Brown-Brown
Screen 1 (268-662-000)	Aluminium/Polyester foil
Screen 2 (268-662-000)	0.10 x 16 x 11 tinned copper braid < 80% coverage
Jacket material	Thermoplastic Vulcanizate (TPV)
Overall diameters	
268-660-000 U/UTP	7.20 ± 0.30 mm
268-662-000 SF/UTP	8.00 ± 0.30 mm
Bend radius	10 x overall diameter
Operating temperature	-20 to +80 °C

Electrical Specification

Conductor resistance		< 85 Ohms/km
Characteristic Impedance	1 - 100 MHz	100 ± 15 Ω
	200 – 250 MHz	100 ± 22 Ω
Capacitance (core to core)	268-660-000	< 49 pF/m
	268-662-000	< 58 pF/m
Velocity of Propagation		69 % nominal
Skew		< 50 ns

	268-660-000 U/UTP		268-662-000 SF/UTP	
Frequency (MHz)	Attenuation (dB/100m)	NEXT (dB)	Attenuation (dB/100m)	NEXT (dB)
1	2.0	74.3	2.6	74.3
4	3.8	65.3	5.7	65.3
10	6.0	59.3	8.5	59.3
16	7.6	56.2	10.5	56.2
31.25	10.7	51.9	14.4	51.9
100	19.8	44.3	24.9	44.3
200	29.0	39.8	36.0	39.8
250	32.8	38.3	40.5	38.3

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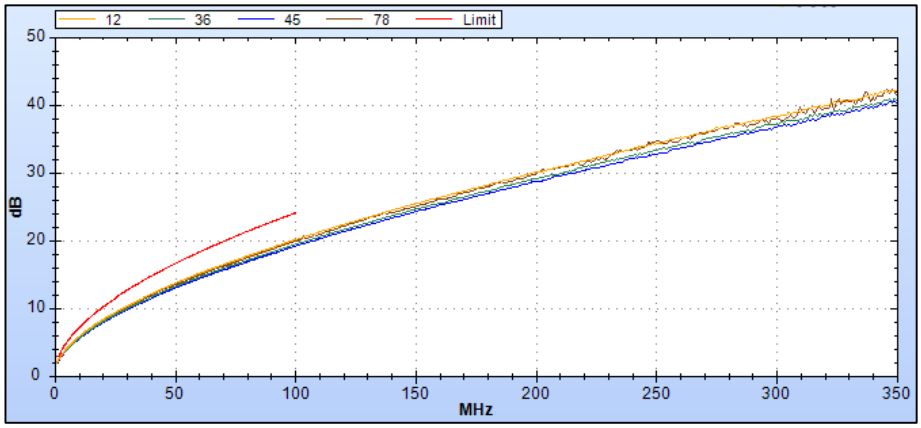
Fluke DTX1800 Test Results 268-660-000 Cat 6 U/UTP

NB All test results are for 105 metres unshielded RJ45 termination (U/UTP), Category 5E channel link
Red line denotes performance limits

Attenuation



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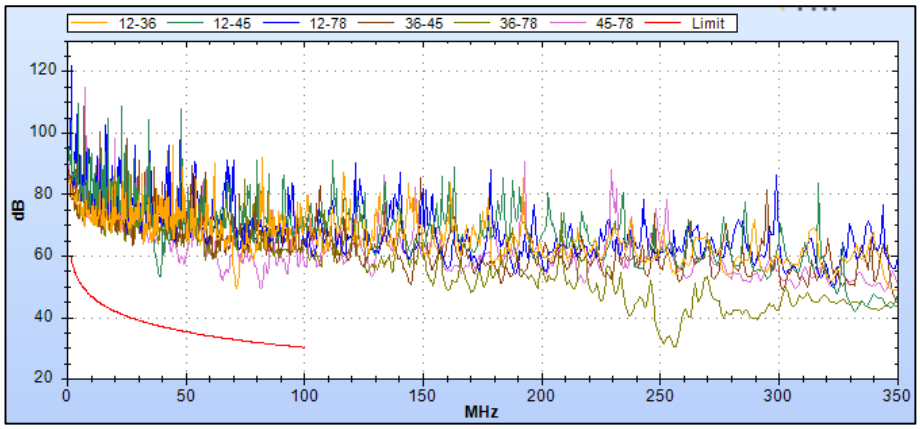

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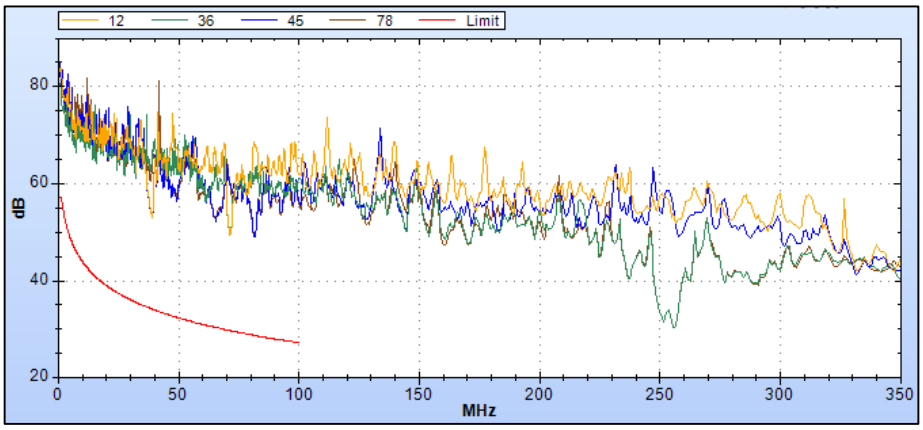
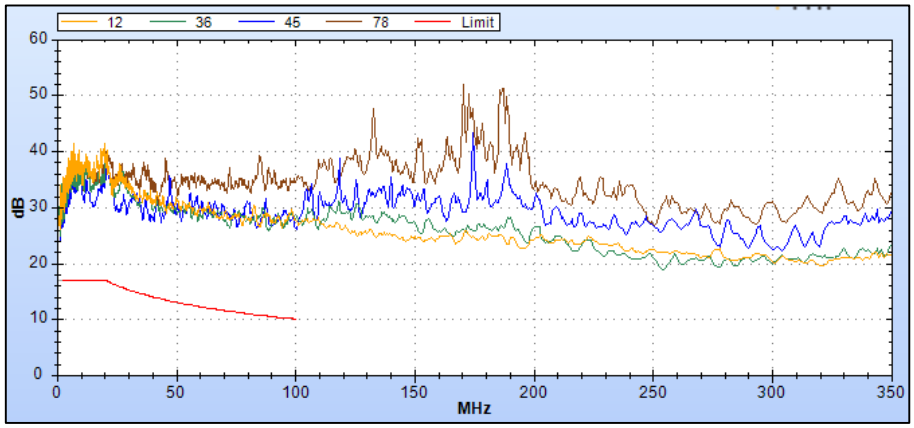


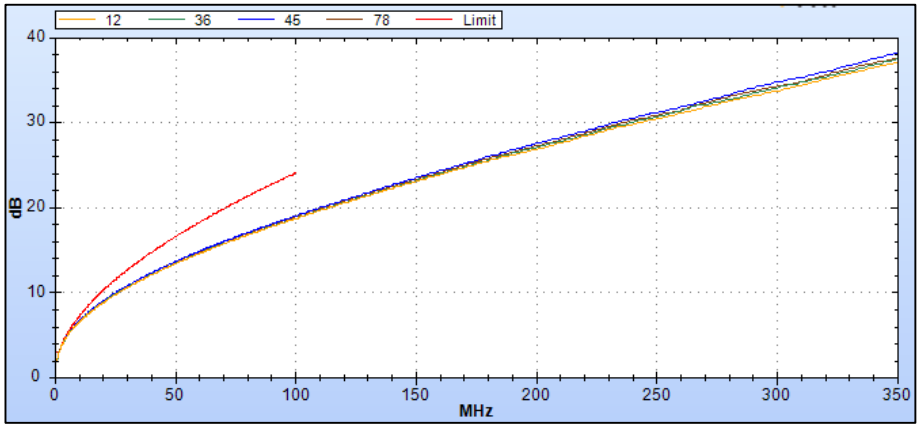
RETURN LOSS



Fluke DTX1800 Test Results 268-662-000 Cat 6 SF/UTP

NB All test results are for 77 metres shielded RJ45 termination (SF/UTP), Category 5E channel link
Red line denotes performance limits

Attenuation



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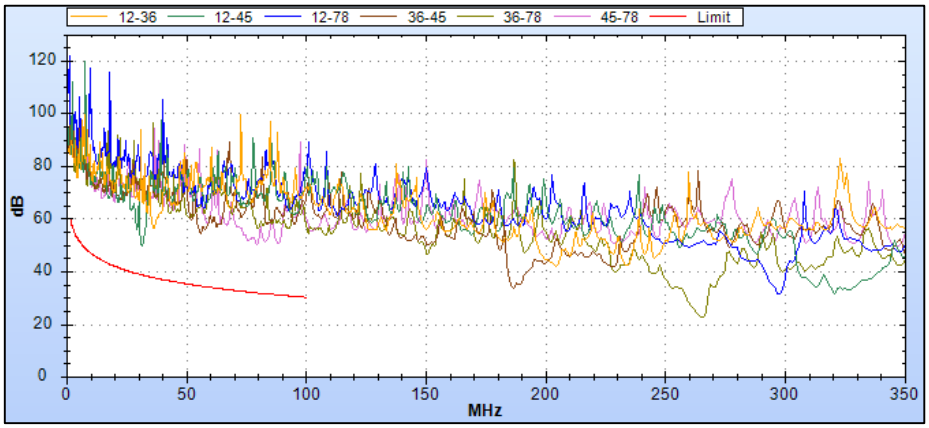

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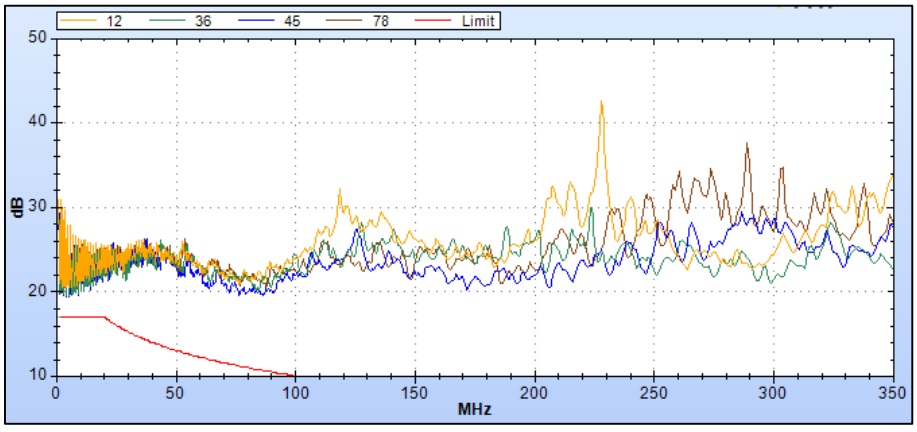

Part Numbers & Description

Part number	Description	Max. Reel length
268-660-000	Van Damme TourCat Cat 6 Solid U/UTP	500 m
268-662-000	Van Damme TourCat Cat 6 Solid SF/UTP	500 m

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Recommended RJ45 Connectors

268-660-000	Sentinel Connector Systems Unshielded Cat 5E/6 RJ45, part no. 111-08080028L34
268-662-000	Van Damme Shielded Cat 6A RJ45, part no. 351-000-002

Connector selection criteria

Conductor		AWG 23 solid
Insulation diameter		1.05 ± 0.07 mm
Overall diameters:	268-660-000 U/UTP	7.20 ± 0.30 mm
	268-662-000 SF/UTP	8.00 ± 0.30 mm

Compliance

TIA/EIA-568-C-2
EN 50288-2-2
ISO/IEC 11801

RoHS 2011/65/EU	Restriction of Hazardous Substances
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals