

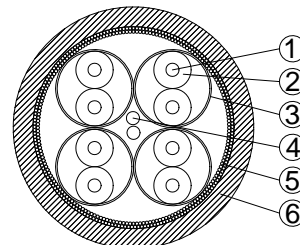
Uppgjord (även faktaansvarig om annan) - Prepared (also subject responsible if other)		Nr - No.	
ECA/RFK ECAHN		1301-TEL 301 8006/004 Uen	
Dokansv/Godk - Doc respons/Approved	Kontr - Checked	Datum - Date	Rev
ECA/RFK (Patrik Bergman)		2009-09-28	C
		File =/LZB 101 01/10B	

26 AWG HALOGEN FREE PAIR SCREENED CABLE FOR INDOOR USE.

1

GENERAL

Product code TEL 301 8006/004
 Application 100Ω specified to 1 GHz.
 Fire requirement UL CMR
 Classification UL 444 LISTED
 Net mass 61 kg/km.



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DIMENSIONS AND MATERIAL TYPES

Pos	Item		Limit	Value	Test method	Clause	Unit
	Number of pairs			4			
1	Conductor solid Ag plated.	∅	Nom	0.4			mm
2	Insulation PE or PP foamed.	∅	Nom	1.0	IEC 60189-1	2.2.3	mm
3	HF-screen Al-Pet , Al facing out	t	Nom	0.025			mm
4	Drain wire solid CU tinned.	∅	Nom	0.4			mm
6	Braid CU tinned Cov. Single braid wire	∅	Min Nom	60 0.10	IEC 60096-0-1		% mm
7	Sheath FRPE Wall thickness	∅ t	Avg Nom	5.8 ± 0.5 0.65	IEC 60189-1	2.2.1	mm mm

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COLOURS OF INSULATION ACCORDING TO IEC 60189-2

Pair no	1	2	3	4
A core	White	White	White	White
B core	Blue	Orange	Green	Brown

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SHEATH MARKING

Marking on sheath shall be twice per metre if not otherwise is stated.
 Sheath colour grey RAL 7001 and marking colour blue or black.

NAME XXXX YYWW PRODUCT CODE FIRE RATING PAIR GAUGE TEMP LENGTH

NAME ERICSSON.
 XXXX Identification code for manufacturing plant.
 YYWW Year and week of manufacture, e.g. 0003. once per metre.
 PRODUCT CODE ERICSSON product code.
 FIRE RATING Type of fire rating cable shall comply with.
 PAIR Number of pairs.
 GAUGE Dimension of conductor in AWG.
 TEMP Maximum operation temperature for cable in degrees Celsius.
 LENGTH Sequential length markers once per metre, continuous length marking is allowed.

Ericsson AB

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5 ELECTRICAL, MECHANICAL AND ENVIRONMENTAL PROPERTIES

All measurements are to be performed at 20°C unless otherwise stated in the table below.

Characteristic	Freq. (f)	Unit	Test method	Limit	Value	Unit
Resistance conductor		DC	IEC 60189-1	Max	153	mΩ/m
Resistance unbalance		DC	IEC 60708	Max	2	%
Capacitance mutual	1	kHz	IEC 60189-1	Nom.	45	pF/m
Capacitance earth unbalance	1	kHz	IEC 60189-1	Max	1600	pF/km
Insulation Resistance		DC	IEC 60189-1	Min	5000	MΩkm
Dielectric strength cond.-cond. Cond.-screen.		DC	IEC 60189-1	Min	2.5	kV 2sec
		DC	IEC 60189-1	Min	2.5	kV 2sec
Resistance screen		DC	IEC 60189-1	Max	12	mΩ/m
Transfer impedance	30	MHz	IEC 61156-1	Max	20	mΩ/m
Screening attenuation	30	MHz	IEC 62153-4-4	Min	50	dB
Characteristic impedance	10-1000	MHz	IEC 61156-1		100 ± 5	Ω
Return loss	10-20	MHz	IEC 61156-1	Min	25	dB
	20-1000	MHz	IEC 61156-1	Min	$25 - 7 * \log_{10}(f/f_0 * 20)$	dB
Unbalance attenuation LCL	1-200	MHz	IEC 61156-1	Min	$40 - 10 * \log_{10}(f/f_0)$	dB/100m
Attenuation	10-1000	MHz	IEC 61156-1	Max	$3.2 * \sqrt{(f/f_0)}$	dB/100m
Near end crosstalk PS NEXT.	10-1000	MHz	IEC 61156-1	Min	$99.4 - 15 * \log(f/f_0)$	dB
Far end crosstalk PS ELFEXT.	10-1000	MHz	IEC 61156-1	Min	$91 - 20 * \log(f/f_0)$	dB @ 100m
Delay Skew	10-1000	MHz	IEC 61156-1	Max	0.05	ns/m
* Differential delay skew	10-1000	MHz		Max	10	ps/m
Bending radius				Min	40	mm
Pulling force				Max	100	N
Operating temperature				Min	- 20	°C.
				Max	+75	°C.
Fire properties			UL 1666 CMR IEC 60332-3-24		Pass Pass	
Amount of acid halogen gas			IEC 60754-2		Pass	

(For calculating Return loss, Unbalance attenuation, Near and Far end crosstalk use $f_0 = 1\text{MHz}$ in formulas.)

(For those frequencies where the calculated value of PS Next and PS EL Fext is greater than 75dB, The requirement shall be 75 dB).

(* Measured at 20m cable length).

6 MATERIALS PROPERTIES

Material requirements acc.to ECA10549-101.

7 REFERENCE STANDARDS

ECA 105 49-101	Communications Cable.
IEC 60096	Radio-frequency cables
IEC 60189	Low-frequency cables and wires with PVC Insulation and PVC Sheath.
IEC 60708	Low-frequency cables with polyolefin insulation and moisture barrier polyolefin sheath.
IEC 61156	Multicore and symmetrical pair/quad cables for digital communications.
IEC 60332	Tests on electric cables under fire conditions.
UL 444	Communications Cable.
UL 1666	Test for Flame Propagation.

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