

Broadband Cell, Corporate Office
1, Bharat Sanchar Bhavan, Janpath
New Delhi: 110001
Ph: 23734094 Fax: 23734284



भारत संचार निगम लिमिटेड
(भारत सरकार का उपक्रम)
BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)

No: 64-225/2012-BBO

Dated: 04-04-2013

To
The CGM
All Telecom Circles/Metro districts/Telecom Factories

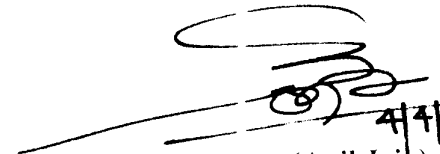
Sub: Use of CAT-5 cable (with 0.5mm copper wire dia) in place of D-8 cable (Drop-wire) for providing broadband connectivity to the subscribers

The Management committee had approved the report submitted by committee with respect to CAT-5 cable in place of D-8 cable (Drop-wire) for providing broadband connectivity to the subscribers as under.

1. Use CAT-5 cable (with 0.5 mm copper wire dia) for providing broadband connections in place of D-8 cable (Drop-wire). **Therefore, the requirement of drop wire may be reduced in the same proportion in which CAT-5 cable is procured for providing broadband connections.**
2. Telecom Factory allowed to manufacture CAT-5 cable (with 0.5 mm copper wire dia) in place of D-8 cable (SSDW) by making suitable modifications/additions in their existing machinery lines as the cost of CAT-5 cable is lesser than D-8 cable and can be manufactured in the Telecom Factories.
3. Telecom Circle authorized to procure CAT-5 cable from open market (with 0.5 mm copper wire dia) for next six months requirement only as telecom factory need time to establish required infrastructure. However, TF may seek requirement from all circles accordingly.
4. The approved specifications of the CAT-5 cable (with 0.5 mm copper wire dia) is attached at **Annexure-I.**
5. Manufacturer will have to take TSEC from QA as per the specifications of CAT-5 cable (with 0.5 mm copper wire dia) enclosed.

Circles may initiate necessary actions accordingly.

This has the approval of competent authority.


4/4/2013
(Anil Jaih)
Sr. GM (NWP-BB)

Copy to:

1. CMD, BSNL for kind information please.
2. Dir (CFA)/ (EB) for kind information please.
3. GM(TF) BSNL CO for necessary action please.

Generic specifications of CAT-5 cable (with 0.5mm copper wire dia)

S. No.	Test	Unit	Specification value of single pair 24 AWG CAT-5 Drop cable
A	Visual Examination		
1	Packing (in coils)		in coils
2	surface finish		
3	Copper wire	Smooth, Bright	Smooth, Bright
4	Insulation	Smooth W/o Bubbles	Finish, No bubbles
5	Sheath		Finish, No bubbles
6	Ripcord	to be provided	Provided
B	Physical Dimensions		
1	Conductor Material	-	Annealed Bare Copper
2	Conductor Diameter	mm	0.500 (min)
3	Insulator Material	-	PE(HDPE)
4	Pairs Colours	-	White+ Blue
5	Insulation Core Diameter	mm	1.00(max.)
6	Insulation Thickness	mm	0.18 to 0.25
7	Pair Lay	mm	35(max.)
8	Pair Lay direction	-	Right Hand
9	Wrapping Material	-	Polyester
10	Over lap	%	20 (min.)
11	Sheath Material	-	PE(HDPE)UV
12	Sheath Colour	-	Black
13	Sheath Thickness	mm	0.80 (min.)
14	Sheath Over all Diameter	mm	
C	Mechanical Tests		
1	Conductor Elongation	%	15(min)
2	Conductor Weight	kg/Km	1.75(min)
3	Insulation Elongation	%	300(min)
4	Insulation Tensile Strength	N/mm ²	15.0(min)
5	Sheath Elongation	%	300(min)
6	sheath Tensile Strength	N/mm ²	15(min)
7	Fibre Roving 2400 tex	-	to be provided
8	Breaking Load	Kg	80 (min)
D	Electrical Tests (At 20 C)		
1	Conductor Resistance	Ω /Km	92.20 (max)
2	High voltage Test (for 1 minute)	KV, rms	2.0 (min)
3	Insulation Resistance (at 500 V dc)	M Ω /Km	10000 (min)
4	Character Impedance at 1 MHz	Ω	100 \pm 15
5	Character Impedance at 4 MHz	Ω	100 \pm 15
6	Attenuation at 1 MHz	dB/100m	2.0 (max)
7	Attenuation at 4 MHz	dB/100m	4.1 (max)