



On air, during an event or in an advertising break, there cannot be anything worse than a transmission loss. Whether in the outside field or inside the studios, for the broadcast industry high quality and reliability are a must. For this reason, national and international broadcasting companies decide for Draka Comteq products, without "ifs and buts".

Our customers are responsible for events like Formula 1, Football World Championship and Olympic Games. They operate and work on racecourses, in stadiums and play-out centres worldwide, using high-end products of innovative suppliers, like Draka Comteq. In the broadcast world there is no compromise.

HDTV VIDEO CABLES



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HISTORY

With regard to the safety aspect in broadcast studios there was a need for a FRNC-C video cable at the beginning of the 80's. In 1982 a new video cable was born - the 0.6/2.8 AF.

This cable built the basis for a complete product range of video cables. Following the enhancements from analogue (Composite, Component) via digital (SDI) to di-

gital HDTV, the video cable 0.6/2.8 AF and the complete product family have the best transmission properties and transmission length.

The characteristics:

- Thinner
- Fulfils the FRNC-C requirements
- Better electrical properties
- Better screening factor.



In 2007 we celebrate the 25th birthday of the video cable 0.6/2.8 AF. From the beginning this video cable was always state-of-the-art. To make sure that our AF video cables meet the future requirements, they are measured and tested up to a frequency of 5GHz.

TRANSMISSION LENGTH

The maximum transmission length of a video cable essentially depends on the attenuation value at the frequency to be considered. The attenuation values of coaxial cables are determined by:

INNER CONDUCTOR

diameter and construction

BRAID

braid angle and diameter in proportion to the diameter of the dielectric insulation

FOIL

construction and thickness

LOSS FACTOR TAN δ

dielectric losses at high frequencies



RESULTS

On the occasion of the 2006 Football World Championship and the HDTV signals 1080i, a number of tests have been conducted regarding the transmission length (independent institutes, appliance and broadcast van manufacturers).

Cable type	max. cable length HD 1080i measured	max. cable length based on SMPTE 292M calculated	max. cable length HD 1080i calculated with head room	max. cable length 3 Gbit/s calculated
0.6/2.8 AF	90 m	66 m	60 m	42 m
1.0/4.8 AF	140 m	112 m	100 m	72 m
1.6/7.3 AF	240 m	161 m	145 m	90 m

For more information visit: www.drakact.com/files/laengen_video_e.pdf

0.6/2.8 AF S | HDTV | 5 GHz



**HD
Transmission
length:
110 meters**

For our new HDTV video cable a test has been conducted regarding the transmission length with a broadcast van operator.

The following equipment was used for the test:

Analyzer: Leader LV 5750 Multi

Source: Tektronix TG2000 HD Generator, Signal HD 1080i

Monitor: Sony Multiformat LMD 9050

JVC Monitor DTV component Multi

Cable type	max. cable length HD 1080i measured	max. cable length based on SMPTE 292M calculated	max. cable length HD 1080i calculated with headroom	max. cable length 3 Gbit/s calculated
0.6/2.8 AF S	110 m	70 m	63 m	44 m

For further test information visit: www.drakact.com/tech_stud_e.html