

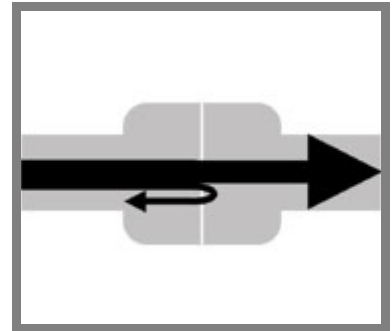
Measuring parameters

Please find below a short definition of the most important measuring parameters in the connectorization technology. For further information on the technical and theoretical subjects behind each parameter please refer to articles on www.cabelcon.dk or contact the nearest Cabelcon distributor or sales office.

Return loss

Return loss shows how much of the main signal that will get lost because of reflections. The measuring parameter shows how many dB a given reflection is smaller than the main signal.

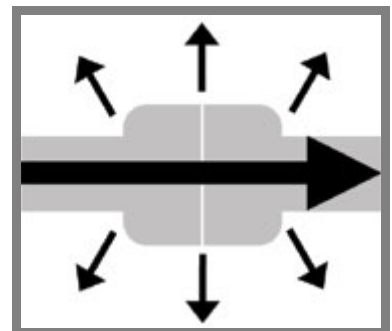
In addition to the return loss there will also be a small echo that disturbs backward in the system.



Shielding effectiveness

Shielding effectiveness shows the connectors ability to keep the main signal inside - and to prevent signals from outside in penetrating.

The low frequency area (< 30 MHz) is measured as transfer impedance (mΩ/meter). The high frequency area is measured as screening attenuation and shows how many dB a signal has been lowered compared to the original signal.



P.I.M. (passive intermodulation)

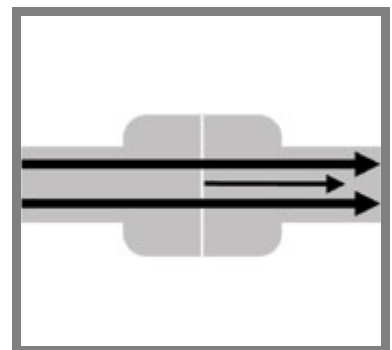
Signals can get mixed and hereby create new unwanted signals for example by passing through contact points such as a connector.

The IMD value describes the relation between the main signal and the unwanted disturbing signals. Cabelcon uses 3 ways to describe the IMD:

One describes the relation between the two signals, measured in dBc, typical for 75-Ohm connectors.

Another describes the size of the two signals, both measured in dBm, typical for 50-Ohm connectors.

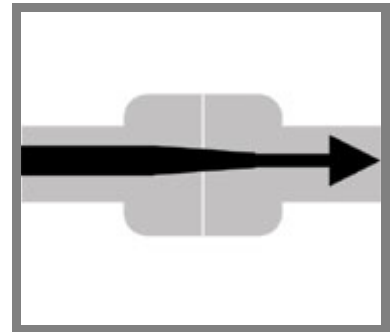
A third way to describe the IMD value is the IP3 (Intercept Point 3rd) measured in dBm. IP3 is the fictive point where the two signals meet, if one imagines that the main signal strengthens until the two signals come together.



Measuring parameters

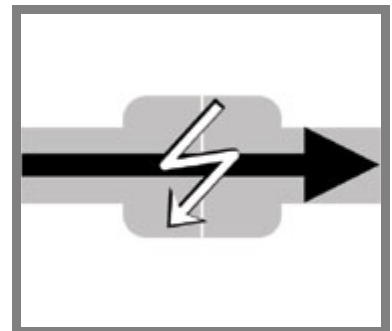
Insertion loss

Insertion loss shows the complete loss of the main signal. Return loss, shielding effectiveness, PIM, etc., are parts of this complete loss. Insertion loss is measured in dB.



Dielectric strength

Dielectric strength shows the maximal voltage between inner conductor and outer conductor, measured in kW.



Sealing test

The sealing tests show the physical sealing ability of a connector. The connector is tested under a certain water pressure for a certain amount of time, e.g. 30 meters /8 hours.

