



UHD BNC Measurement

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Technical Paper – UHD BNC Measurement

Title: UHD BNC Measurement

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MEASUREMENT – TDG METHOD

RETURN LOSS MEASUREMENT UP TO 6 GHz

The following return loss measurement demonstrates the functionality of the TDG method on Neutrik's new rearTWIST UHD BNC, in order to provide a verifiable reference of commonly used products in the professional broadcast industry.

1 Measurement setup & condition

Figure 1 show the measuring setup including network analyzer, adapter cable, DUT and a 75Ω load for the return loss measurement via TDG method.

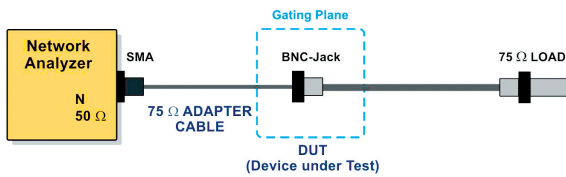


figure 1

2 Measurement results “non-gated” in frequency and time domain

The measured return loss values are transformed from the frequency domain to the time domain. The gate (figure 2) is manually positioned (table 1 lists used gate parameters) to measure the BNC connector and suppress the impedance of the cable, analyser, etc.

PARAMETER	VALUE
Span	2.5 ns
Zero point	5,5 ns
End point	8 ns

table 1

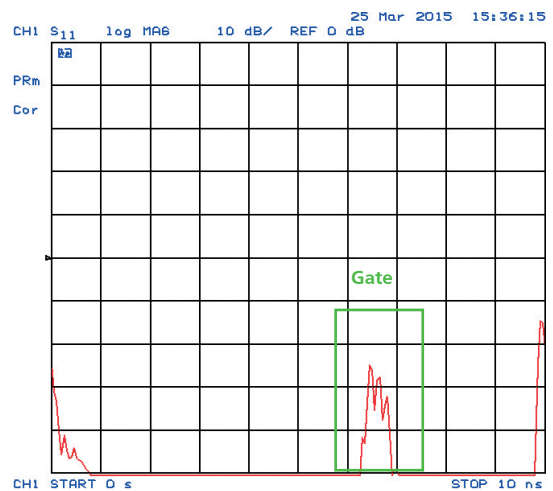
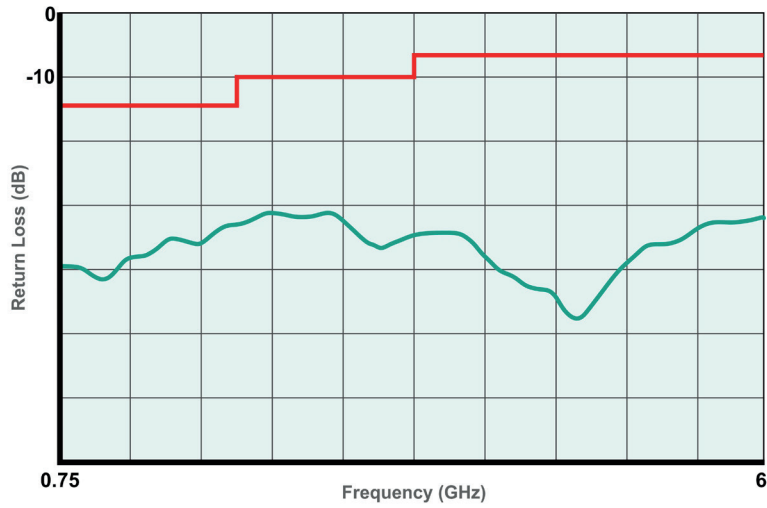


figure 2

TESTED CABLES

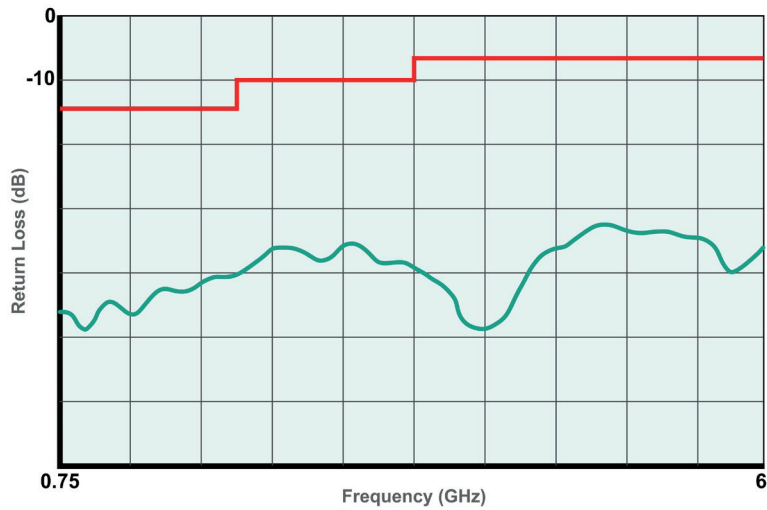
Tested cable: **Argosy Image 360**
 Suitable UHD BNC: **NBNC75BFG7X**

Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 5.00 mm



Tested cable: **Argosy Image 1000**
 Suitable UHD BNC: **NBNC75BTU11X**

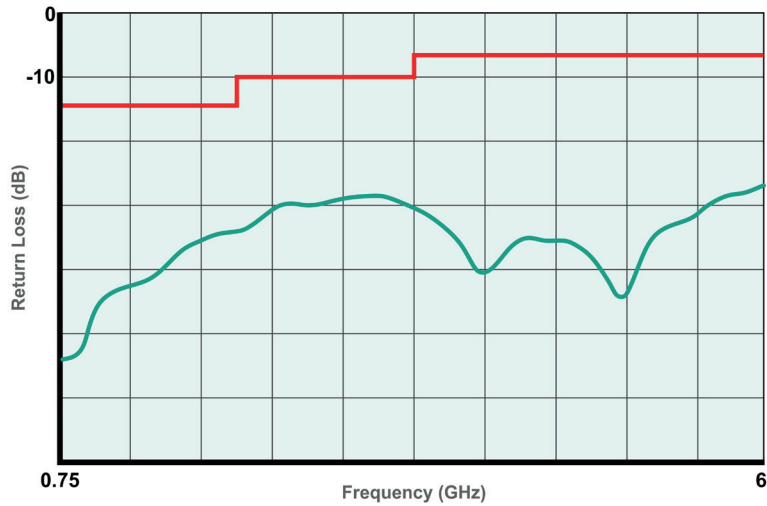
Crimp Die: DIE-R-BNC-PU
 Pin Crimp: 1.07 mm
 Hex Crimp: 7.36 mm



TESTED CABLES

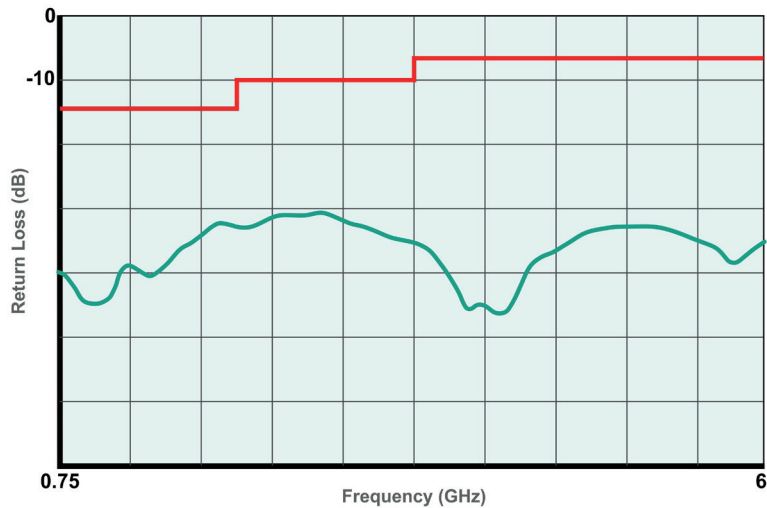
Tested cable: **Belden 1855 A**
 Suitable UHD BNC: **NBNC75BDD6X**

Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 4.53 mm



Tested cable: **Belden 1855ENH**
 Suitable UHD BNC: **NBNC75BFG7X**

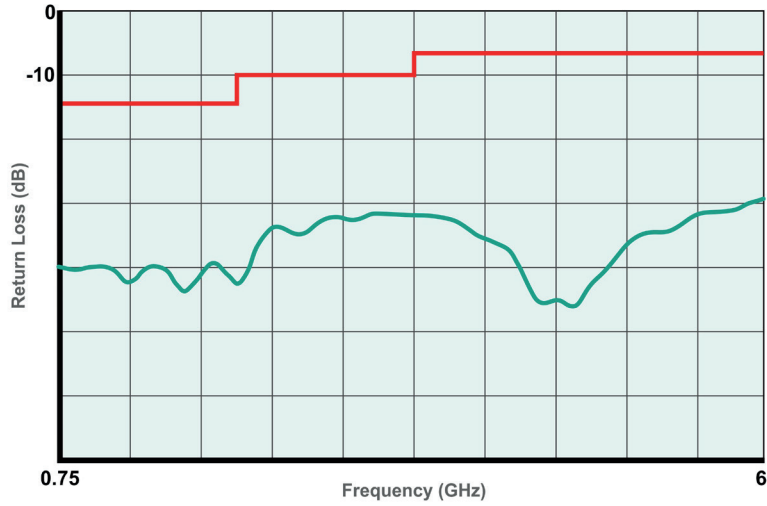
Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 5.00 mm



TESTED CABLES

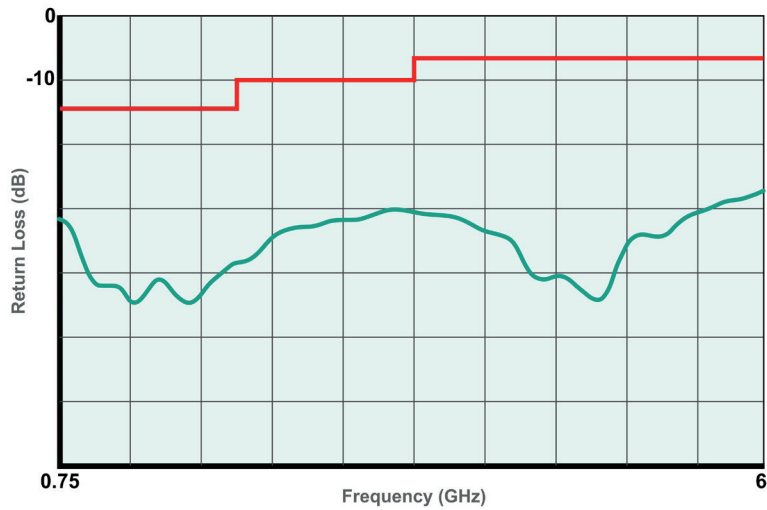
Tested cable: **Belden 70080**
 Suitable UHD BNC: **NBNC75BFG7X**

Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 5.00 mm



Tested cable: **Belden 70080 NH**
 Suitable UHD BNC: **NBNC75BFG7X**

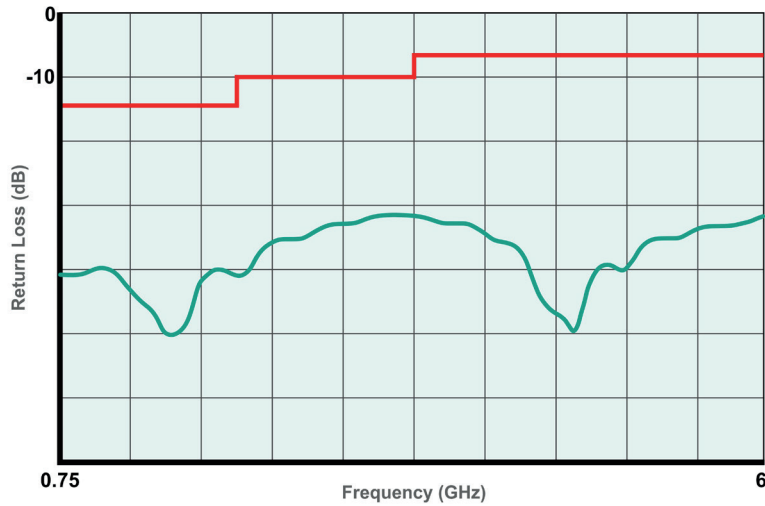
Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 5.00 mm



TESTED CABLES

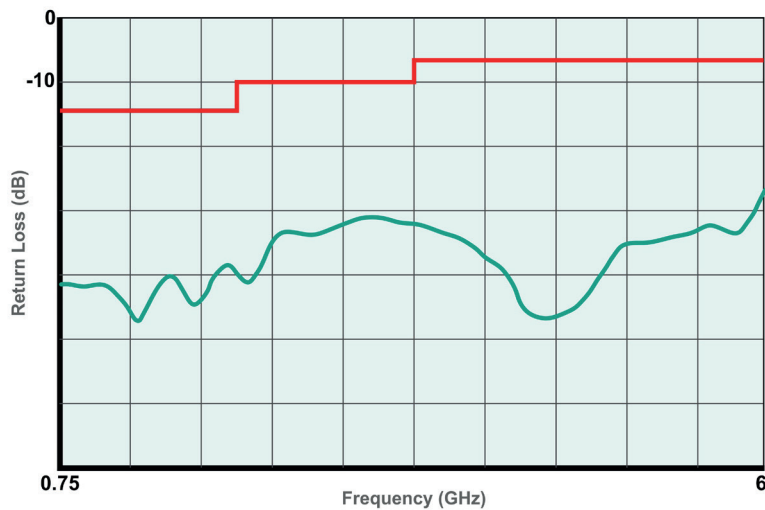
Tested cable: **Belden 70081**
 Suitable UHD BNC: **NBNC75BLP9X**

Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 6.47 mm



Tested cable: **Belden 70081 NH**
 Suitable UHD BNC: **NBNC75BLP9X**

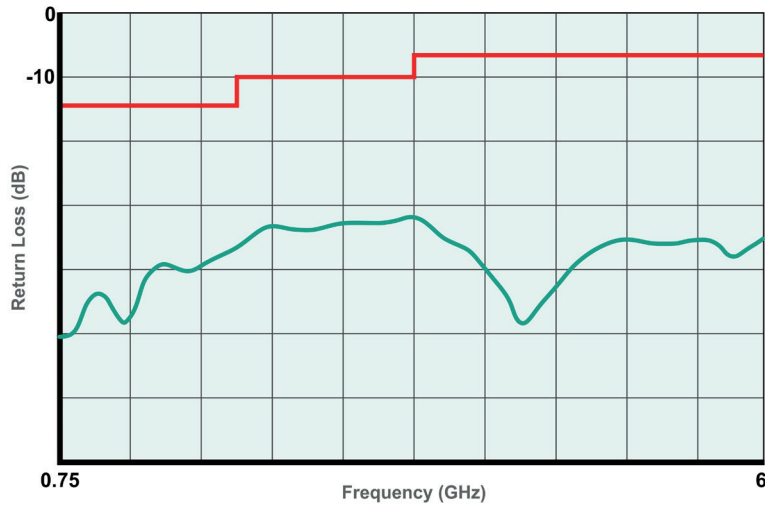
Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 6.47 mm



TESTED CABLES

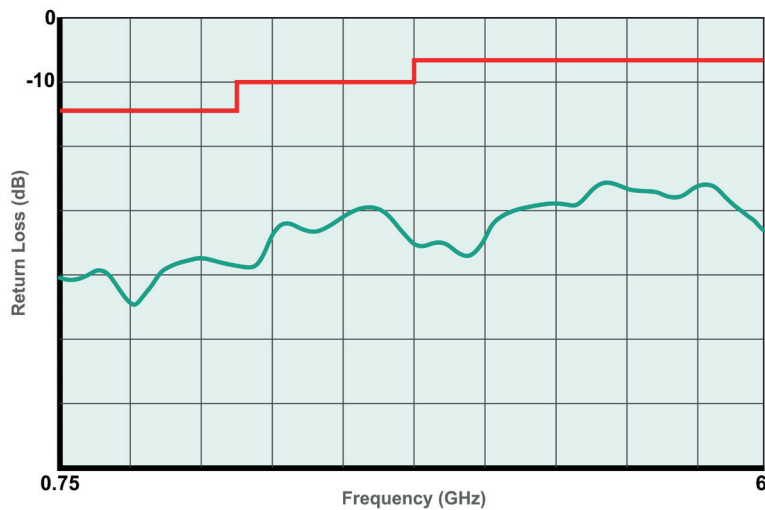
Tested cable: **Belden 70082**
 Suitable UHD BNC: **NBNC75BTU11X**

Crimp Die: DIE-R-BNC-PU
 Pin Crimp: 1.07 mm
 Hex Crimp: 7.36 mm



Tested cable: **Bryant SD10F**
 Suitable UHD BNC: **NBNC75BTU11X**

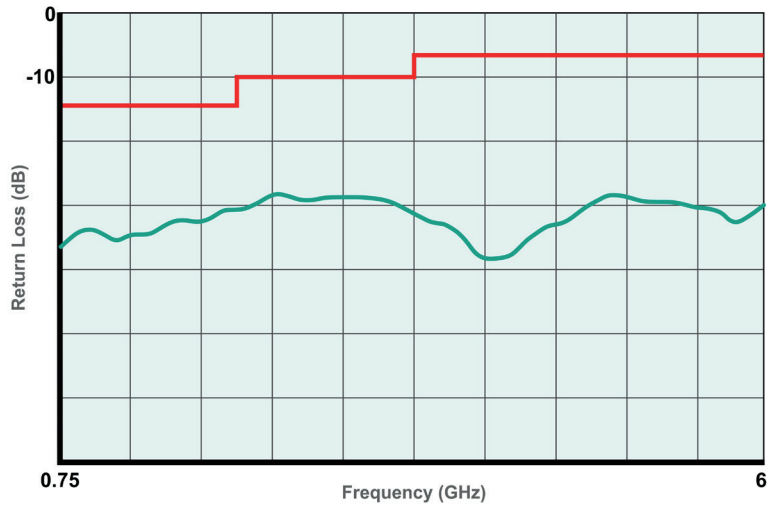
Crimp Die: DIE-R-BNC-PU
 Pin Crimp: 1.07 mm
 Hex Crimp: 7.36 mm



TESTED CABLES

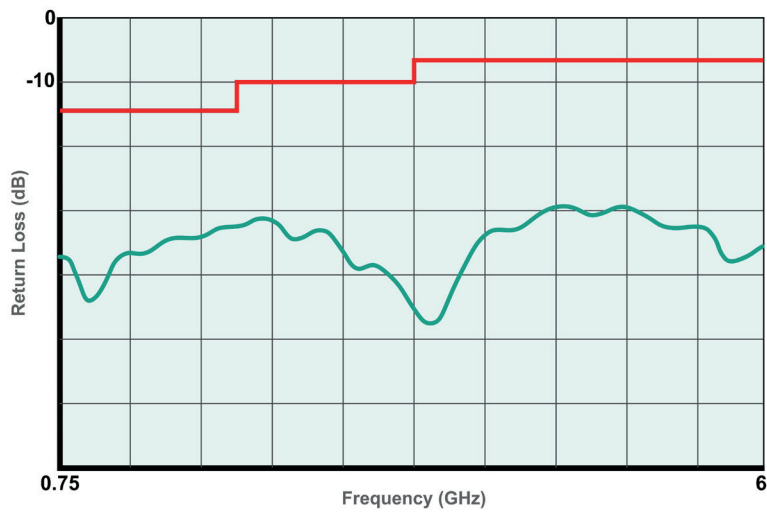
Tested cable: **Bryant SD11**
 Suitable UHD BNC: **NBNC75BTU11X**

Crimp Die: DIE-R-BNC-PU
 Pin Crimp: 1.07 mm
 Hex Crimp: 7.36 mm



Tested cable: **Bryant SD50F**
 Suitable UHD BNC: **NBNC75BLP9X**

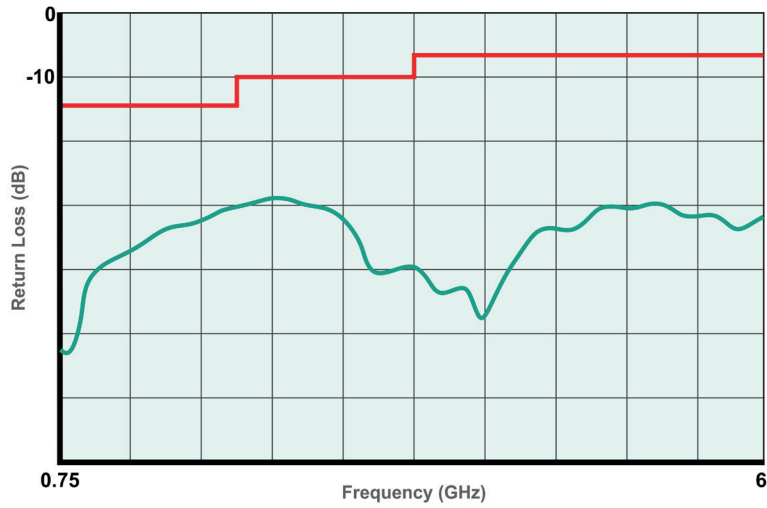
Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 6.47 mm



TESTED CABLES

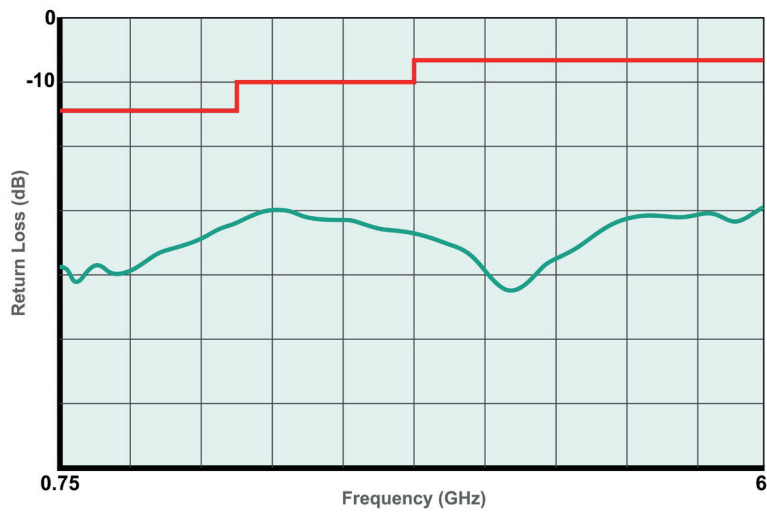
Tested cable: **Canford SDV-X-LFH**
 Suitable UHD BNC: **NBNC75BFG7X**

Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 5.00 mm



Tested cable: **Canare L-4CFB**
 Suitable UHD BNC: **NBNC75BLP9X**

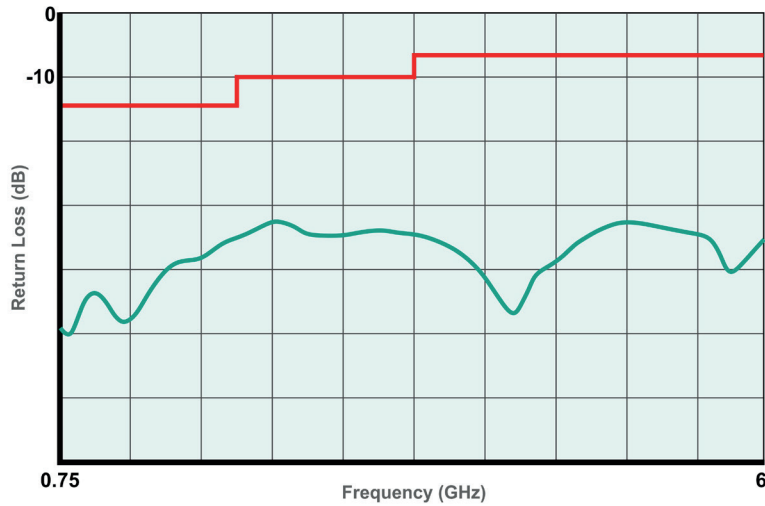
Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 6.47 mm



TESTED CABLES

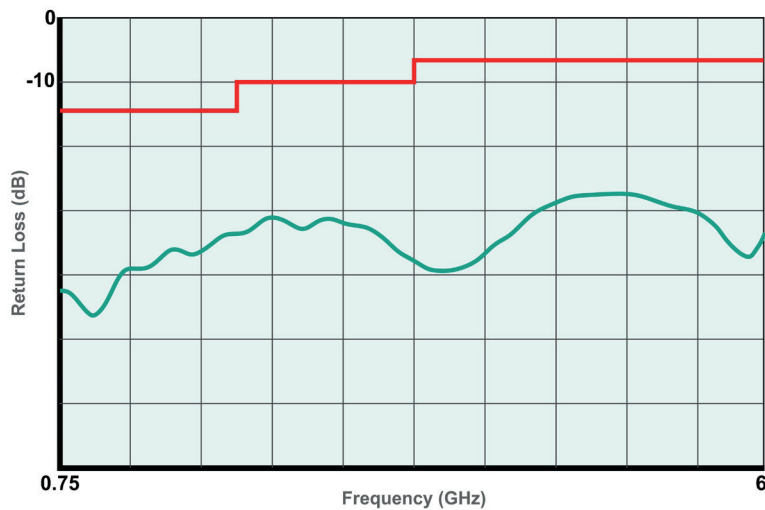
Tested cable: **Canare L-4.5CHD**
 Suitable UHD BNC: **NBNC75BTU11X**

Crimp Die: DIE-R-BNC-PU
 Pin Crimp: 1.07 mm
 Hex Crimp: 7.36 mm



Tested cable: **Canare L-4CHWS**
 Suitable UHD BNC: **NBNC75BFG7X**

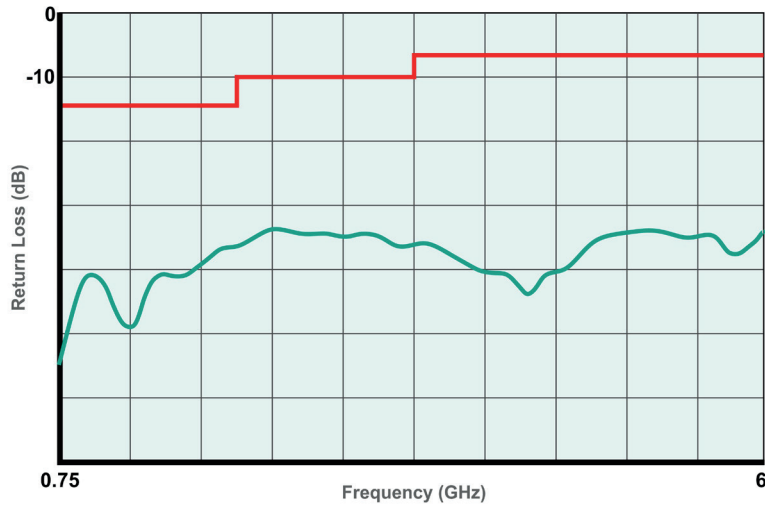
Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 7.36 mm



TESTED CABLES

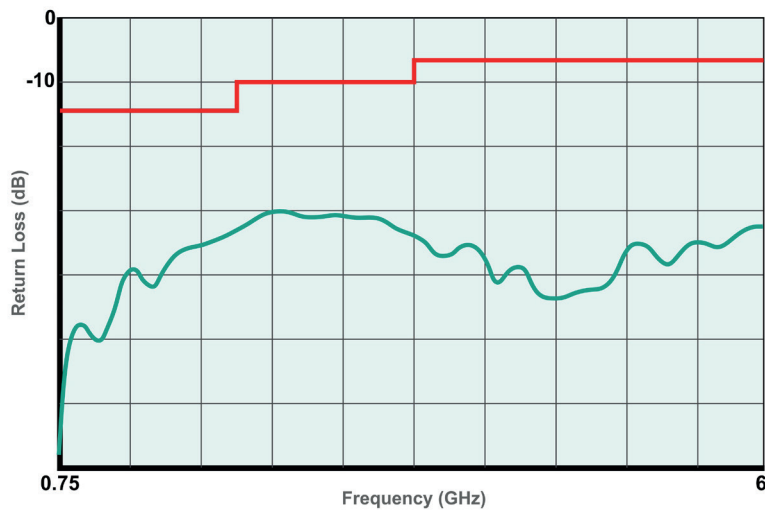
Tested cable: Clark CD7506
 Suitable UHD BNC: NBNC75BTU11X

Crimp Die: DIE-R-BNC-PU
 Pin Crimp: 1.07 mm
 Hex Crimp: 7.36 mm



Tested cable: Clark CD7523
 Suitable UHD BNC: NBNC75BDD6X

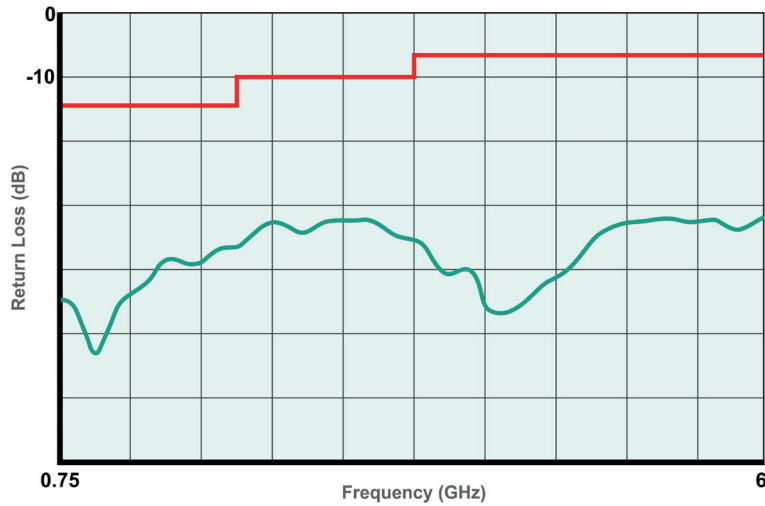
Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 4.53 mm



TESTED CABLES

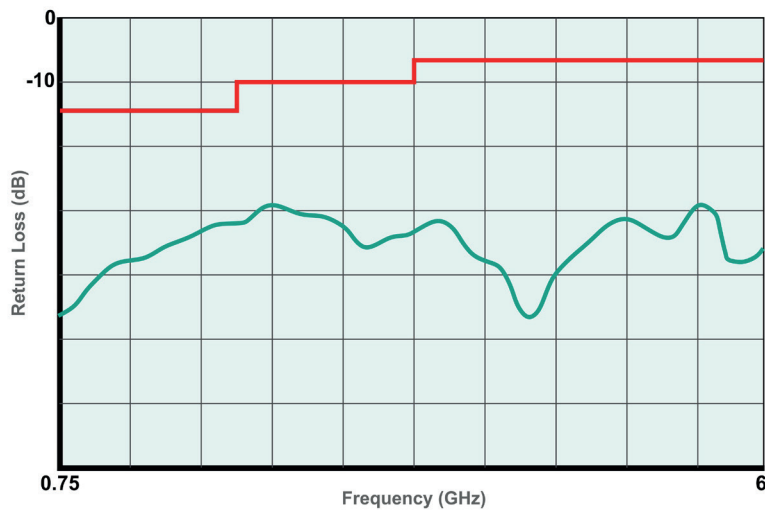
Tested cable: **Clark CD7559**
 Suitable UHD BNC: **NBNC75BLP9X**

Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 6.47 mm



Tested cable: **Draka HD Pro 0.6/2.8 AF**
 Suitable UHD BNC: **NBNC75BFG7X**

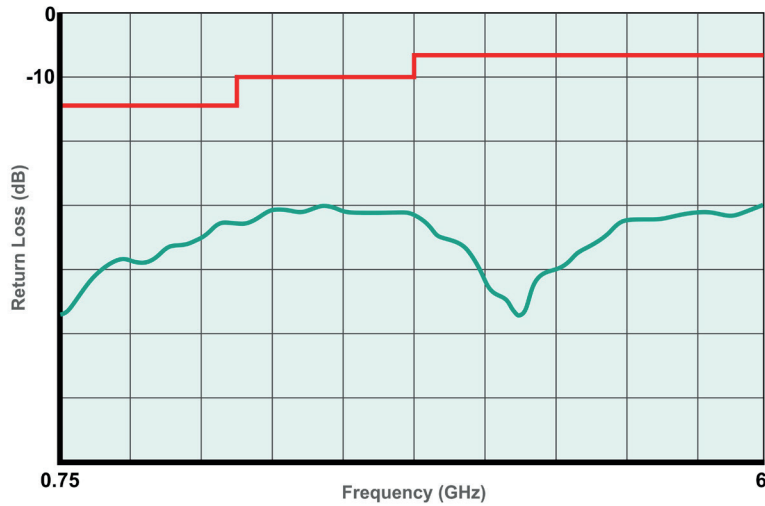
Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 5.00 mm



TESTED CABLES

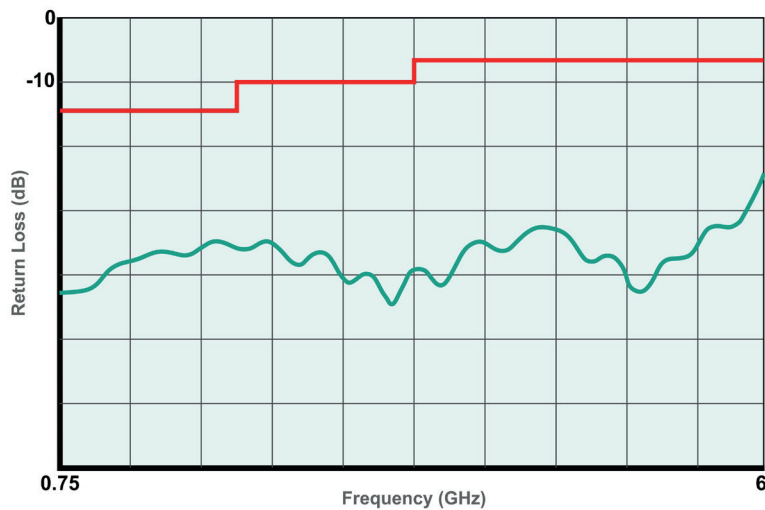
Tested cable: Draka HD Pro 0.8/3.7 AF
Suitable UHD BNC: NBNC75BLP9X

Crimp Die: DIE-R-BNC-PDG
Pin Crimp: 1.07 mm
Hex Crimp: 6.47 mm



Tested cable: Draka Highflex 0.8L/3.7Dz
Suitable UHD BNC: NBNC75BLP9X

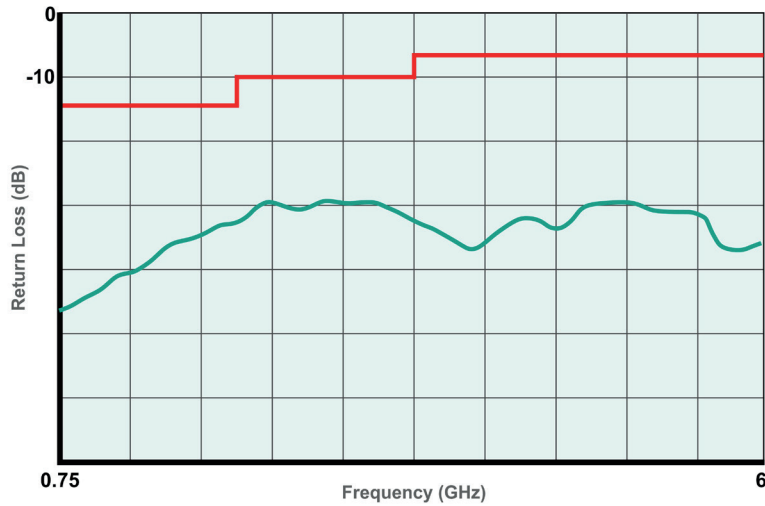
Crimp Die: DIE-R-BNC-PDG
Pin Crimp: 1.07 mm
Hex Crimp: 6.47 mm



TESTED CABLES

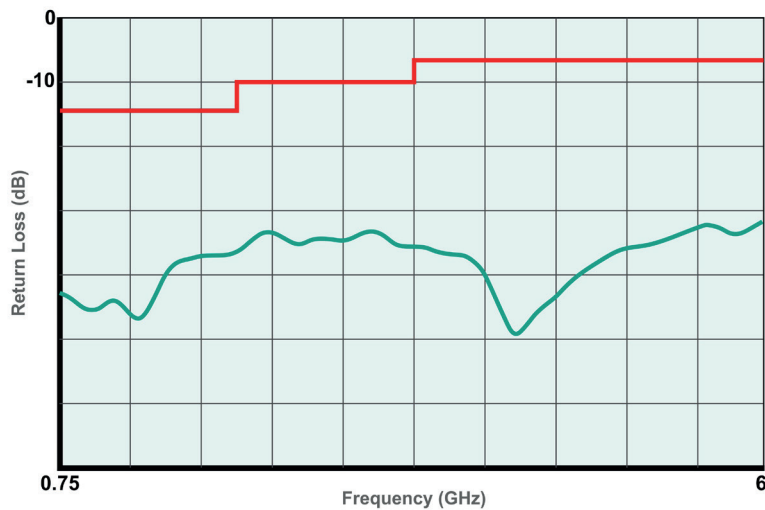
Tested cable: **Gepco VDM230**
 Suitable UHD BNC: **NBNC75BDD6X**

Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 4.53 mm



Tested cable: **Klotz VD083SH**
 Suitable UHD BNC: **NBNC75BLP9X**

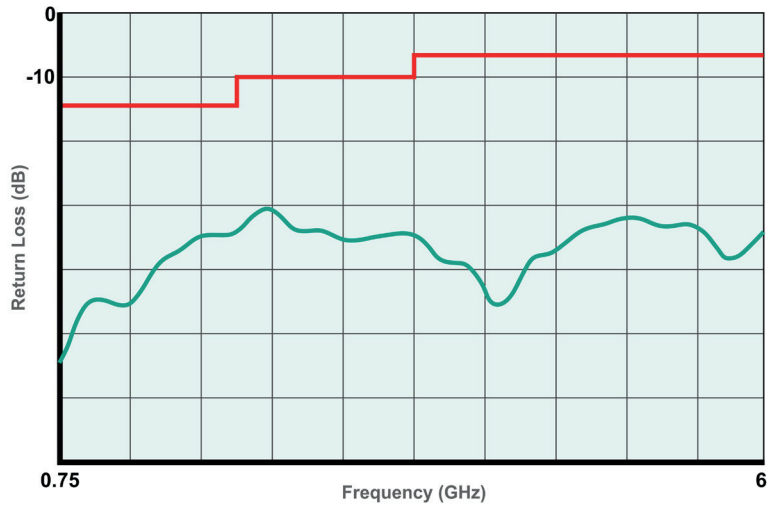
Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 6.47 mm



TESTED CABLES

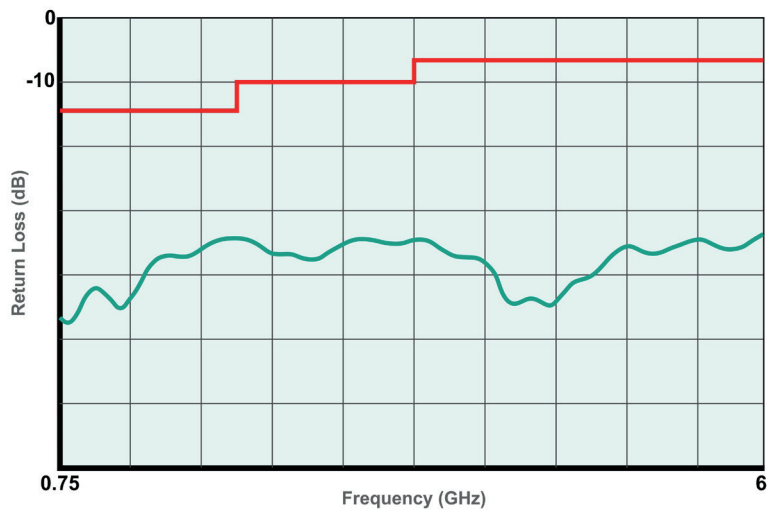
Tested cable: **Klotz V062SH**
 Suitable UHD BNC: **NBNC75BFG7X**

Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 5.00 mm



Tested cable: **Klotz VD08/37H**
 Suitable UHD BNC: **NBNC75BLP9X**

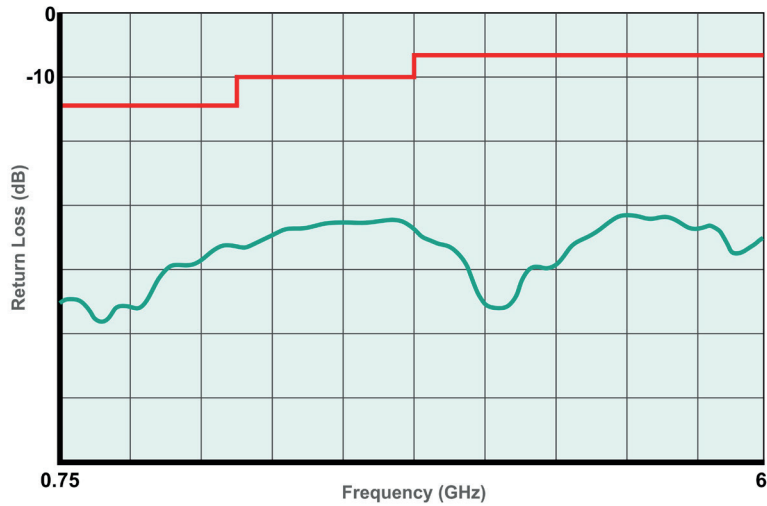
Crimp Die: DIE-R-BNC-PDG
 Pin Crimp: 1.07 mm
 Hex Crimp: 6.47 mm



TESTED CABLES

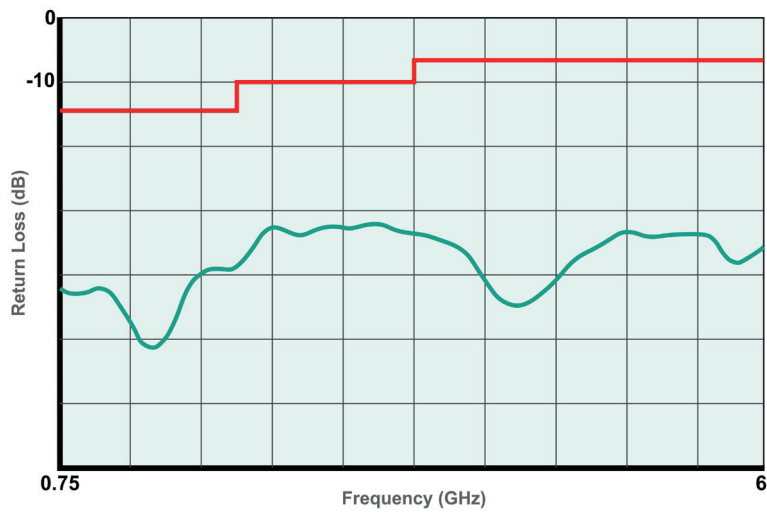
Tested cable: **Klotz V10/48**
 Suitable UHD BNC: **NBNC75BTU11X**

Crimp Die: DIE-R-BNC-PU
 Pin Crimp: 1.07 mm
 Hex Crimp: 7.36 mm



Tested cable: **Klotz V10/48H**
 Suitable UHD BNC: **NBNC75BTU11X**

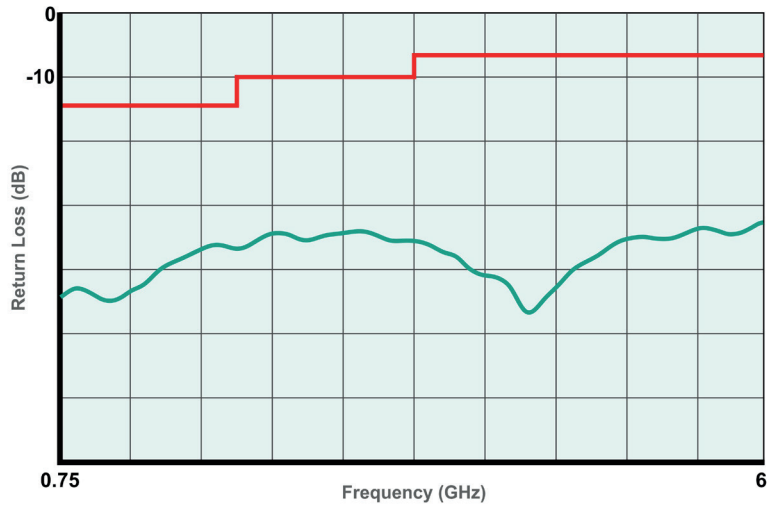
Crimp Die: DIE-R-BNC-PU
 Pin Crimp: 1.07 mm
 Hex Crimp: 7.36 mm



TESTED CABLES

Tested cable: Sommer vector 0.8/3.7
Suitable UHD BNC: NBNC75BLP9X

Crimp Die: DIE-R-BNC-PDG
Pin Crimp: 1.07 mm
Hex Crimp: 6.47 mm





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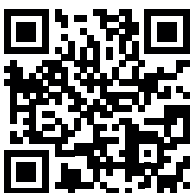
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