



Certificate

Customer	Brand-Rex GmbH Im Taubental 58 D-41468 Neuss Phone: +49 / 2131 / 3609-0 Fax: +49 / 2131 / 3609-99								
Test lab	Gesellschaft für Hochfrequenz-Meßtechnik mbH In der Kolling 13 D-66450 Bexbach Phone: +49 / 6826 / 9228 – 0 Fax: +49 / 6826 / 9228 – 99								
Test report	This certificate refers to the comprehensive test report no. 753/01 from 21 st February 2001 and shall only be applicable in conjunction with this test report.								
Description	Certification of transmission characteristics with respect to highfrequency behavior. The specimen, a 90 m permanent link and 100 m interconnect channel to be used in local area networks, could be characterized as: <table><tr><td>Patchpanel</td><td>Brand-Rex Typ: C6C-PNL-F-xx-0y-8M xx = 16, 24 = 16, 24 Port, Pre-assembled according to TIA 568 A, B y = 1, K = 110, LSA connectivity</td></tr><tr><td>Data cable</td><td>Brand-Rex Typ: C7STP-xxx-y PIMF Length: 90 m xxx = HF1, HF3 = LSF/OH IEC332.1, IEC332.3c xxx = ----- = PVC IEC332.1 y = D = Duplex, Shotgun</td></tr><tr><td>Outlet</td><td>Brand-Rex Typ: C6C-G-x45S-y-001 x = 1,2 = 1,2 Port, Pre-assembled according to TIA 568 A, B y = V,H = vertical, horizontal cable-entering</td></tr><tr><td>Patchcord/ Work area cord</td><td>Brand-Rex Typ: C6C-PC-S-xxx-888-y – Length:5m xxx = Length y = H = LSF/OH IEC332.1 y = -- = PVC IEC332.1 Cable: C7STP-P27-(HF1), 4Pair 27 AWG PIMF S/STP Plug: RJ45 one side, Typ: BRC6Rev.1</td></tr></table>	Patchpanel	Brand-Rex Typ: C6C-PNL-F-xx-0y-8M xx = 16, 24 = 16, 24 Port, Pre-assembled according to TIA 568 A, B y = 1, K = 110, LSA connectivity	Data cable	Brand-Rex Typ: C7STP-xxx-y PIMF Length: 90 m xxx = HF1, HF3 = LSF/OH IEC332.1, IEC332.3c xxx = ----- = PVC IEC332.1 y = D = Duplex, Shotgun	Outlet	Brand-Rex Typ: C6C-G-x45S-y-001 x = 1,2 = 1,2 Port, Pre-assembled according to TIA 568 A, B y = V,H = vertical, horizontal cable-entering	Patchcord/ Work area cord	Brand-Rex Typ: C6C-PC-S-xxx-888-y – Length:5m xxx = Length y = H = LSF/OH IEC332.1 y = -- = PVC IEC332.1 Cable: C7STP-P27-(HF1), 4Pair 27 AWG PIMF S/STP Plug: RJ45 one side, Typ: BRC6Rev.1
Patchpanel	Brand-Rex Typ: C6C-PNL-F-xx-0y-8M xx = 16, 24 = 16, 24 Port, Pre-assembled according to TIA 568 A, B y = 1, K = 110, LSA connectivity								
Data cable	Brand-Rex Typ: C7STP-xxx-y PIMF Length: 90 m xxx = HF1, HF3 = LSF/OH IEC332.1, IEC332.3c xxx = ----- = PVC IEC332.1 y = D = Duplex, Shotgun								
Outlet	Brand-Rex Typ: C6C-G-x45S-y-001 x = 1,2 = 1,2 Port, Pre-assembled according to TIA 568 A, B y = V,H = vertical, horizontal cable-entering								
Patchcord/ Work area cord	Brand-Rex Typ: C6C-PC-S-xxx-888-y – Length:5m xxx = Length y = H = LSF/OH IEC332.1 y = -- = PVC IEC332.1 Cable: C7STP-P27-(HF1), 4Pair 27 AWG PIMF S/STP Plug: RJ45 one side, Typ: BRC6Rev.1								



Valuation standards

- DIN EN 50173:1995 + A1:2000 from July 2000
Informationstechnik – Anwendungsneutrale Verkabelungssysteme
- ISO/IEC 11801:1995 & AM1:1999 + AM2:1999(E)
Information technology – Generic cabling for customer premises
- TIA 568A 1995 & ADD 1-4
- TIA 568A TSB 95 (1999) & ADD5 (Cat.5e)(1999)
- ISO/IEC JTC 1/SC 25/WG 3 – Draft 598 (05/00)
- ISO/IEC 11801 2nd edition: Clauses as approved by WG 3 at Sydney and as proposed by editors for consideration

Test parameter

- Attenuation
- Near-end crosstalk attenuation (NEXT)
- Power-sum near-end crosstalk attenuation (PS NEXT)
- Attenuation to crosstalk loss ratio (ACR)
- Power-sum attenuation to crosstalk loss ratio (PS ACR)
- Equal level far-end crosstalk attenuation (EL FEXT)
- Power-sum Equal level far-end crosstalk attenuation (PS EL FEXT)
- Propagation delay
- Delay skew
- Return loss
- Longitudinal to differential conversion loss
- Loop resistance

Comments

The test results which were determined in the course of the measurement refer to the submitted specimen. Any future technical modifications of the data cables or connectors are subject to the responsibility of the manufacturer.

The specimen meets the limits of the specified standards and regulations with respect to the parameters indicated above. All pin-combinations of **the permanent link and the interconnect channel** comply with the requirements of the Class E threshold values.

Bexbach,
21. February 2001

A handwritten signature in black ink, appearing to read 'F. Streibert', is written above a horizontal line.

Dipl.-Ing. F. Streibert
(Head of labs)