



UNI EN 9001 2000

# novacavi<sub>spa</sub>

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## TEST REPORT N°OC 47\_09-10

**Customer:** CERN DIVISION DES FINANCES  
**Customer Order:** CA 1496029  
**Cable type:** COAX CBR50 50 OHM ( POLYIMMIDE ) IEC 60332-3-24 CERN IS23 BLACK  
**Novacavi Code:** 1HRS281  
**Specification:** 1HRS281  
**Quantity required:** 1000 m **Quantity supplied:** 550 m + 550 m

| Visual inspection and dimensional tests                                 | Requested | Measured  |
|---|-----------|-----------|
| <b>Coax 50 OHM:</b>   |           |           |
| Bare Copper (strands x diameter mm)                                     | 7X0.30    | 7X0.30    |
| Several layers of polyimmide tapes                                      |           |           |
| Nominal diameter (mm)   | 3.5±0.2   | 3.52÷3.55 |
| <b>Screen</b>   |           |           |
| Tinned copper braid overall shield, wire diameter 0,15 mm, coverage 95% |           |           |
| Nominal diameter (mm)   | 4.1       | 4.12÷4.16 |
| <b>Outer sheath</b>   |           |           |
| Two layers of polyimmide tapes 0,05 mm, overlap 50% colour red          |           |           |
| Nominal diameter (mm)   | 4.50      | 4.52÷4.55 |

**Marking**  
 CERN - CBR50 - NOVACAVI - ZERO HALOGEN

### ELECTRICAL TESTS

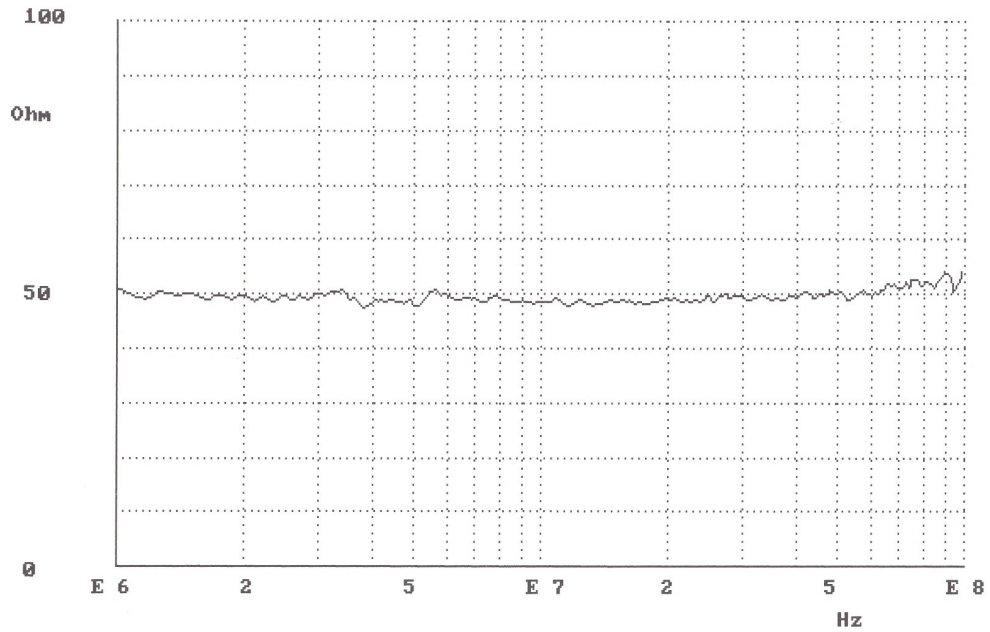
|  |         |                  |
|--|---------|------------------|
| Electrical resistance inner conductor @20°C Ohm/km | < 38.40 | 35.54            |
| Electrical resistance outer conductor @20°C Ohm/km | < 9.6   | 8.30             |
| Nominal capacitance (pF/m)                         | 123     | 118 ; 120        |
| Nominal Impedance (ohm)                            | 50      | See fig. 1       |
| Nominal calculated attenuation (db/100 m):         |         |                  |
| @ 1 Mhz  | 1.4     | 1.4 (See fig. 2) |
| @ 10 Mhz   | 5.2     | 5.1 (See fig. 2) |
| @ 100 Mhz  | 22      | - (See fig. 2)   |

**Test voltage:**  
 Conductors/Screen 10 kV ac x 10 min Passed

**FIRE TEST**  
 IEC 60332-1 Passed

Date: 03/04/2009

Quality Control  
Dr. Davide Mandelli



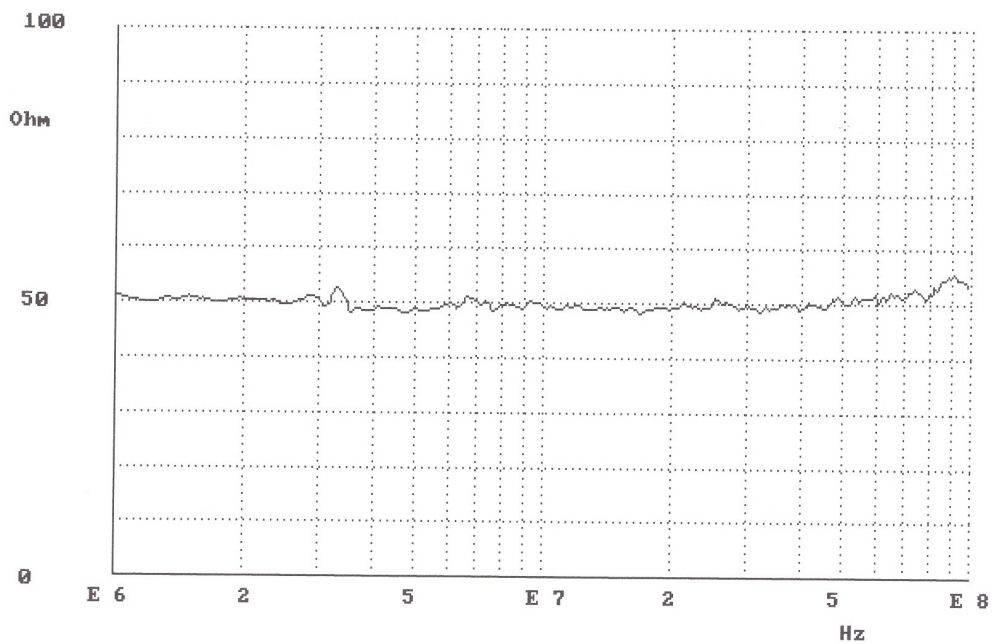
tipo Misura: IMPEDENZA (Ohm)

Codice Cavo: 1HRS 281

Capacità (pF/m): 120

Lunghezza Cavo (m): 550

Cod. Fab.:



tipo Misura: IMPEDENZA (Ohm)

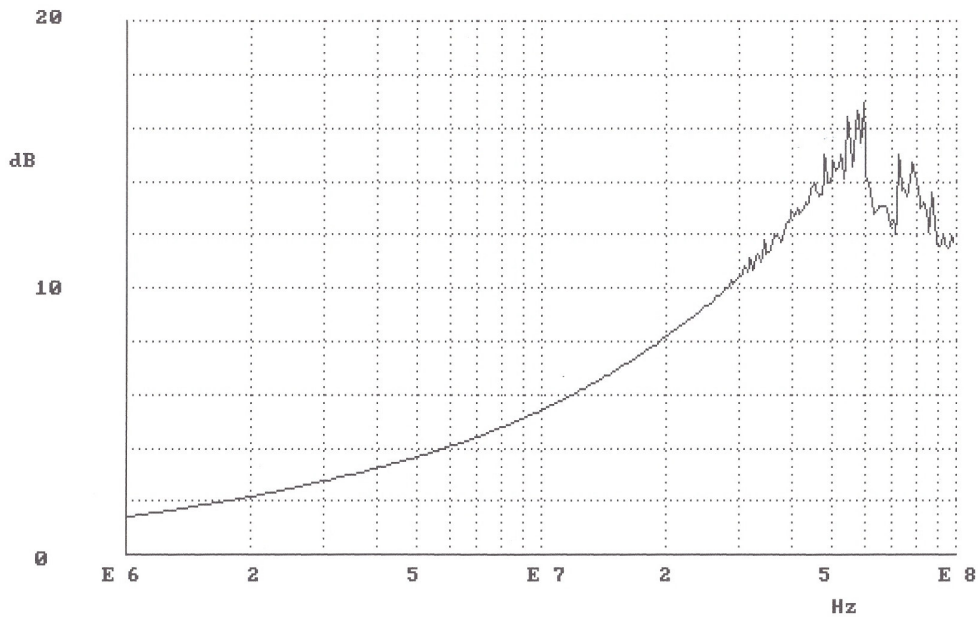
Codice Cavo: 1HRS 281

Capacità (pF/m): 118

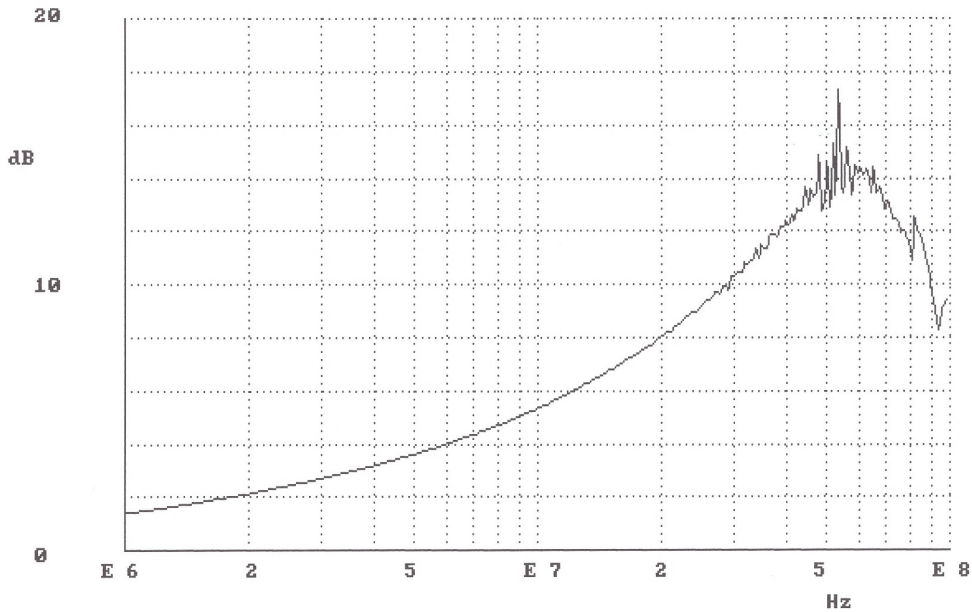
Lunghezza Cavo (m): 550

Cod. Fab.:

fig. 1



Tipo di misura: ATTENUAZIONE (dB/100m): cavo terminato su 50 (Ohm)  
 Codice Cavo: 1HRS 281 Lunghezza bobina in prova (m): 550  
 Capacità (pF/m): 120 Cod. di fabbrica: -----



Tipo di misura: ATTENUAZIONE (dB/100m): cavo terminato su 50 (Ohm)  
 Codice Cavo: 1HRS 281 Lunghezza bobina in prova (m): 550  
 Capacità (pF/m): 118 Cod. di fabbrica: -----

fig.2