# RG 58/U 50Ω


## Construction:

- Inner Conductor : tinned copper, fine wired stranded, diameter 0,9 ± 0,01 mm, 19 x 0,18 mm
- **Insulation (dielectric):** polyethylene, external diameter 2,95 ± 0,05 mm
- **External conductor:** braid of tinned copper wires 0,10 mm, 96% optical overlap
- **Sheath:** PVC, external diameter 4,95 ± 0,10 mm
- **sheath colour:** black

## Technical Data :

**Temperature range:**
✓ during installation: -15 °C up to +55 °C
✓ operating temp.: -40 °C up to +85 °C
**Min. inner bending radius:**
✓ without load: 5D (25 mm)
✓ under load: 10D (50 mm)
**Behavior in fire:** IEC 60332-1
**Maximal tensile strength:** 120 N
**Cable weight:** 37 kg/km

Design Standard

US Standard MIL -C - 17

## Electrical Data:

| | | | |
|---|---|---|---|
| **Frequency range** | **F max.** | **[GHz]** | **3** |
| **Insulation resistance** | **R iso** | **[MOhm/km]** | **10000** |
| **Impendance** | **ZL** | **[Ohm]** | **50 +/- 2** |
| **Attenuation** | **100 MHz** | **[dB / 100 m]** | **15,3** |
| **Capacitance** | **C** | **[NF/km]** | **100** |
| **Rel. velocity ratio** | **V rel** | **%** | **67** |
| **Electric strength** | **50 Hz** | **[KV] eff.** | **5** |
| **Operating peak voltage** | | **[kV]** | **2,5** |

## Application:

Coaxial cables are applied for broadband transmission of radio, TV, video and data signals. Applicable up to GHz-a level, with low attenuation and low signal distortion. RG58 coaxial cable is applied for inst. in two-way radio systems and for connection of measurement equipment. Earlier applied as Ethernet cable, which was replaced with CAT 5e cable. Polyethylene of low dielectric constant enables high-speed signal diffusion and good flexibility at installation. Permitted only indoor application, exceptionally also outdoor, under protection against sunlight.

| Frequency | Attenuation at 20 °C | Max. permitted strength (at outdoor temperature of 25 °C and max. conductor temperature of 70 °C) |
|---|---|---|
| **MHz** | **dB/100** | **W** |
| **10** | **4,2** | **750** |
| **100** | **15,7** | **230** |
| **200** | **23,0** | **180** |
| **400** | **34,5** | **110** |
| **1000** | **60,0** | **65** |
| **2000** | **90,0** | **40** |
| **3000** | **120,0** | **30** |