# RF LLF 1/2" SHF1

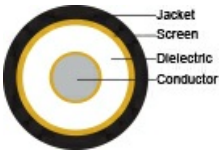
## Feeder cable
## 50Ω
## SHF1
## DNV

## Application

Low loss flexible feeder cable designed for broadband transmission from sources like radio antennas, radars, GPS devices, mobile phone antennas to distribution systems inside ships, tunnels, buildings and underground areas where RF signals normally cannot be received.

## Construction

| | |
|---|---|
| Conductor | Copper coated Al wire 4.80 ± 0.05 [mm] |
| Dielectricum | Cellular PE 12.10 ± 0.30 [mm] |
| Screen | Corrugated Cu tube 13.90 ± 0.25 [mm] |
| Jacket | Black or grey SHF1 |
| O.D. | 16.4 ± 0.4 [mm] |
| Weight | 265 [kg/km] |
| Jacket marking | NEK Kabel – RF LLF 1/2" 50 – SHF1 – DNV – DD/MM/YYYY – <batch no.> – ****m |




## Specifications

| | |
|---|---|
| Operating temperature normal | -25 – +70 [°C] |
| Temperature @ installation | -20 – +50 [°C] |
| Inductance | 0.19 [µH/m] |
| Peak RF voltage | 1.8 [kV] |
| Characteristic impedance | 50 ± 2 Ω |
| Peak power rating | 32 [kW] |
| Insulation resistance | 10 [GΩ x km] |
| Capacitance | 76 [pF/m] |
| Velocity factor | 88 [%] |
| Min. bending radius | 60 [mm] |
| Min. bending radius flexible | 125 [mm] |

## Norms

| | |
|---|---|
| Halogenfree, max content corrosive and toxic gases | IEC 60754-1 & IEC 60754-2 |
| Material properties, insulation and sheath | IEC 60092-360 (359) |
| Design and testing standards | IEC 60096-0-1 Ed 3 IEC 61196-1-100 |
| Flame resistance | IEC 60332-3-24 Cat.C |
| Flame retardant | IEC 60332-1-2 |
| Smoke emission | IEC 61034-2 |
| Certification | DNV |

| | |
|---|---|
| Prod.no. | 1028850-black<br>1028857-grey |

RoHS ✓

NEK offers connectors for RF LLF 1/2":
Male, Part No. 65402 and Female, Part No. 65464

Tips

## Attenuation

| Frequency [MHz] | Attenuation [dB/100m ±5%] | Coupling loss 95% [dB±10] |
|---|---|---|
| 150 | 3.40 | 78 |
| 450 | 6.60 | 80 |
| 900 | 9.50 | 82 |
| 1800 | 13.75 | 88 |
| 2200 | 15.40 | 85 |
| 2400 | 16.00 | 87 |

## VSWR

| Frequency [MHz] | - |
|---|---|
| 760 – 480 | ≤ 1.25 |
| 820 – 960 | ≤ 1.25 |
| 1700 – 1860 | ≤ 1.25 |
| 1900 – 2050 | ≤ 1.30 |
| 2100 – 2200 | ≤ 1.30 |
| 2300 – 2400 | ≤ 1.30 |

## Updated

| Date | Rev. | Description |
|---|---|---|
| 13.09.2017 | 1 | Update outer diam. |
| 10.10.2017 | 2 | Update screen resistance |
| 27.11.2017 | 3 | Update design Norm |
| 27.9.2019 | 4 | Corr. approval |
| 16.06.2020 | 5 | Corr. approvals |
| 11.01.2022 | 6 | Attenuation/VSWR |
| 22.12.2023 | 7 | Norms |