

Technical Document  
**WEBNET Cat 6 23awg 4pair**  
**F/UTP Duct Grade Black**



**Part Number:** 120511F-DUCT-BLK  
**Description:** WEBNET Cat 6 F/UTP 23awg 4pair  
 Duct Grade PE Black



**Product Construction**

Conductor Material : Bare Copper  
 Conductor Size : Solid, 23(1)awg  
 Insulation Material : High Density Polyethylene (HDPE)  
 Number of Pairs : 4  
 Pair Colours : Blue, Blue/White; Orange, Orange/White, Green, Green/White; Brown, Brown/White  
 Drain Wire : Tinned Copper, 1/0.4mm  
 Screening 1 : Overall Aluminium Foil with 100% coverage  
 Inner Sheath Material : Low Smoke Non-Halogen (LSNH)  
 Inner Sheath Colour : Grey  
 Outer Sheath Material : Polyethylene (PE)  
 Outer Sheath Colour : Black



**Mechanical Characteristics**

Inner Sheath Diameter : 7.2mm ± 0.20mm  
 Outer Sheath Diameter : 9.6mm ± 0.20mm  
 Temperature Range : Fixed -20°C to +70°C Flexing 0°C to 50°C  
 Bend Radius : Fixed 4 x Overall Diameter Flexing 8 x Overall Diameter  
 Weight : 65 kg/km

**Electrical Characteristics**

Max. Conductor DC Resistance : ≤ 9.5 Ω/km @ 20°C  
 Max. Resistance Unbalanced : < 2%  
 Max. Insulation Resistance : > 5000 MΩ x m  
 Mutual Capacitance : < 60 pF/m  
 Capacitance Unbalanced : 1600 pF/km  
 Impedance @ 100 MHz : 100 Ω ± 5  
 Velocity of Propagation : 66 %  
 Delay Skew : < 45 ns / 100m  
 Voltage Rating : 125V

| Frequency (MHz) | Attenuation (dB/100m) | NEXT (dB) | PS - NEXT (dB) | ACR (dB) | PS - ACR (dB) | ACRF (dB) | PS-ACRF (dB) | Return Loss (dB) |
|-----------------|-----------------------|-----------|----------------|----------|---------------|-----------|--------------|------------------|
| 1               | ≤ 2.0                 | ≥ 83      | ≥ 80           | ≥ 85     | ≥ 82          | ≥ 83      | ≥ 80         | 25               |
| 4               | ≤ 3.6                 | ≥ 73      | ≥ 70           | ≥ 70     | ≥ 67          | ≥ 70      | ≥ 67         | 31               |
| 10              | ≤ 6.0                 | ≥ 73      | ≥ 70           | ≥ 65     | ≥ 67          | ≥ 60      | ≥ 57         | 30               |
| 100             | ≤ 19.5                | ≥ 55      | ≥ 52           | ≥ 40     | ≥ 37          | ≥ 35      | ≥ 65         | 25               |
| 200             | ≤ 28.5                | ≥ 50      | ≥ 47           | ≥ 25     | ≥ 22          | ≥ 30      | ≥ 27         | 22               |
| 250             | ≤ 32.0                | ≥ 45      | ≥ 42           | ≥ 25     | ≥ 22          | ≥ 22      | ≥ 19         | 22               |

Performance @ 20°C

**Certifications & Standards**

RoHS 3 Compliant : Yes  
 REACH Compliant : Yes  
 Manufactured in Accordance to : TIA/EIA 568-C.2, IEC 11801 Class E, EN 50288-6-1, ISO/IEC 61156-5, EN 50173-1  
 UKCA CPR Classification : Fca to BS EN 50575:2014+A1:2016



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