Kramer’s BCLS-33OR is a high performance CAT6A F/UTP cable designed for IT, LAN and Ethernet installations. Constructed with 23AWG solid bare copper conductors with a cross filler and overall metal foil screen with a drain wire in a LSZH jacket with sequential markings every meter and packed on a fumigated plywood reel make this cable exceed CAT6A specifications to provide additional performance and bandwidth over the basic standard.
MATERIAL AND CONSTRUCTION

Conductor | Material | 23AWG solid bare copper
Insulation | Material | Polyolefin (PO)
| Color code & diameter | Blue & white/blue Stripe | 1.15 ± 0.02 mm
| | Orange & white/orange stripe | 1.11 ± 0.02 mm
| | Green & white/green stripe | 1.15 ± 0.02 mm
| | Brown & white/brown stripe | 1.11 ± 0.02 mm
Twisted | Description | Left hand direction
Filler | Material | Polyolefin (PO)
Assembly | Description | Left hand direction
Shield | Material | Mylar tape
Drain wire | Material | 24AWG solid tinned copper
Shield | Material | Al Mylar tape
| Description | 100 % coverage and mylar side facing out
Jacket | Material | Low smoke zero halogen (LSZH)
| Diameter | 7.60 ± 0.2 mm
| Thickness | 0.55 ± 0.05 mm
| Color | Orange(Pantone 1485C)

USAGE & ENVIRONMENTAL CONDITION

Temperature range | Storage & shipping | -20°C to 60°C
| Installation | 0°C to 60°C
| Operation | -20°C to 60°C
Minimum bending radius | ≥ 4 times of overall diameter
Maximum pulling tension | ≤ 110 N

PHYSICAL & ELECTRICAL CHARACTERISTICS (AT 20°C)

Temperature & voltage rating | 60°C / 30DV
Spark test | 2.5 KV DC
AC leakage current through overall jacket | ≤ 10mA (1.5KV AC)
Cable cold bend | -20°C for 4 hr
Conductor DC resistance | ≤ 9.38 Ω/100m
Resistance unbalance | ≤ 5%
Dielectric strength | 1.5 KV ac for 2 s
Insulation resistance | ≥ 5000 MOhm
Mutual capacitance | ≤ 5.6 nF/100m
Capacitance unbalance pair-to-ground | ≤ 330 pF/100m
Characteristic Impedance | 50 Ω ~ 100MHz, 100x15 0hm
Coupling Attenuation | AT 30 MHz ≤ 55dB; AT 500 MHz ≤ 41 dB
Insulation Tensile Strength | 4200 PSI MIN. (1.69 Kg/m²)
NVP | 67%

TRANSMISSION PERFORMANCE (AT 20°C)

<table>
<thead>
<tr>
<th>Freq. MHz</th>
<th>IL Max.</th>
<th>NEXT Min.</th>
<th>PS NEXT Min.</th>
<th>ACR Min.</th>
<th>PS ACR Min.</th>
<th>ACRF Min.</th>
<th>PS ACRF Min.</th>
<th>Propagation Delay Max.</th>
<th>Delay Skew ns/100m</th>
<th>PS ANEXT Min.</th>
<th>PS AADR-F Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.08</td>
<td>75.30</td>
<td>73.30</td>
<td>73.30</td>
<td>71.92</td>
<td>59.76</td>
<td>56.76</td>
<td>23.01</td>
<td>552.00</td>
<td>75.00</td>
<td>71.00</td>
</tr>
<tr>
<td>4</td>
<td>3.90</td>
<td>66.17</td>
<td>64.27</td>
<td>62.47</td>
<td>60.47</td>
<td>59.76</td>
<td>56.76</td>
<td>23.01</td>
<td>552.00</td>
<td>75.00</td>
<td>71.00</td>
</tr>
<tr>
<td>8</td>
<td>5.31</td>
<td>61.75</td>
<td>59.75</td>
<td>56.44</td>
<td>54.44</td>
<td>53.74</td>
<td>50.74</td>
<td>24.52</td>
<td>546.73</td>
<td>75.00</td>
<td>64.14</td>
</tr>
<tr>
<td>10</td>
<td>5.93</td>
<td>60.30</td>
<td>58.30</td>
<td>54.37</td>
<td>52.37</td>
<td>51.80</td>
<td>48.80</td>
<td>25.00</td>
<td>545.38</td>
<td>75.00</td>
<td>62.20</td>
</tr>
<tr>
<td>16</td>
<td>7.49</td>
<td>57.34</td>
<td>55.34</td>
<td>49.75</td>
<td>47.75</td>
<td>47.22</td>
<td>44.22</td>
<td>25.00</td>
<td>543.00</td>
<td>75.00</td>
<td>58.12</td>
</tr>
<tr>
<td>20</td>
<td>8.38</td>
<td>55.78</td>
<td>53.78</td>
<td>47.41</td>
<td>45.41</td>
<td>44.94</td>
<td>42.94</td>
<td>25.00</td>
<td>542.05</td>
<td>75.00</td>
<td>56.18</td>
</tr>
<tr>
<td>25</td>
<td>9.38</td>
<td>54.33</td>
<td>52.33</td>
<td>44.95</td>
<td>43.95</td>
<td>43.46</td>
<td>40.46</td>
<td>24.32</td>
<td>541.30</td>
<td>75.00</td>
<td>54.24</td>
</tr>
<tr>
<td>31.25</td>
<td>10.50</td>
<td>52.88</td>
<td>50.89</td>
<td>43.37</td>
<td>41.37</td>
<td>40.90</td>
<td>38.90</td>
<td>23.64</td>
<td>540.44</td>
<td>75.00</td>
<td>52.90</td>
</tr>
<tr>
<td>62.5</td>
<td>14.99</td>
<td>48.36</td>
<td>46.36</td>
<td>33.37</td>
<td>31.37</td>
<td>30.89</td>
<td>28.89</td>
<td>21.54</td>
<td>539.55</td>
<td>73.56</td>
<td>46.28</td>
</tr>
<tr>
<td>100</td>
<td>19.14</td>
<td>45.50</td>
<td>43.50</td>
<td>26.17</td>
<td>24.17</td>
<td>23.80</td>
<td>21.80</td>
<td>20.11</td>
<td>537.60</td>
<td>70.50</td>
<td>42.80</td>
</tr>
<tr>
<td>150</td>
<td>23.68</td>
<td>42.66</td>
<td>40.66</td>
<td>18.98</td>
<td>16.98</td>
<td>16.69</td>
<td>15.69</td>
<td>14.99</td>
<td>535.94</td>
<td>67.86</td>
<td>38.69</td>
</tr>
<tr>
<td>200</td>
<td>27.58</td>
<td>40.78</td>
<td>38.78</td>
<td>13.21</td>
<td>11.21</td>
<td>10.92</td>
<td>9.92</td>
<td>9.22</td>
<td>534.55</td>
<td>65.98</td>
<td>34.18</td>
</tr>
<tr>
<td>250</td>
<td>31.07</td>
<td>39.33</td>
<td>37.33</td>
<td>8.26</td>
<td>6.26</td>
<td>5.97</td>
<td>5.97</td>
<td>5.38</td>
<td>533.29</td>
<td>64.43</td>
<td>32.44</td>
</tr>
<tr>
<td>300</td>
<td>34.27</td>
<td>38.14</td>
<td>36.14</td>
<td>3.88</td>
<td>1.88</td>
<td>1.69</td>
<td>1.69</td>
<td>1.69</td>
<td>532.08</td>
<td>63.54</td>
<td>30.66</td>
</tr>
<tr>
<td>350</td>
<td>37.25</td>
<td>37.14</td>
<td>35.14</td>
<td>9.18</td>
<td>7.18</td>
<td>7.18</td>
<td>7.18</td>
<td>7.18</td>
<td>530.82</td>
<td>62.34</td>
<td>29.32</td>
</tr>
<tr>
<td>400</td>
<td>40.05</td>
<td>36.27</td>
<td>34.27</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>529.60</td>
<td>61.47</td>
<td>28.16</td>
</tr>
<tr>
<td>450</td>
<td>42.71</td>
<td>35.50</td>
<td>33.50</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>528.70</td>
<td>60.70</td>
<td>27.14</td>
</tr>
<tr>
<td>500</td>
<td>45.26</td>
<td>34.82</td>
<td>32.82</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>527.80</td>
<td>60.02</td>
<td>26.22</td>
</tr>
<tr>
<td>550</td>
<td>47.70</td>
<td>34.19</td>
<td>32.19</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>526.90</td>
<td>59.39</td>
<td>25.39</td>
</tr>
<tr>
<td>600</td>
<td>50.05</td>
<td>33.63</td>
<td>31.63</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>526.00</td>
<td>58.69</td>
<td>24.64</td>
</tr>
<tr>
<td>650</td>
<td>52.33</td>
<td>32.11</td>
<td>31.11</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>525.11</td>
<td>58.01</td>
<td>23.94</td>
</tr>
</tbody>
</table>

*Values above 500 MHz are for information only
**Acoustic Coupling Ratio (ACR-F) vs. Frequency**

Max. Graph Point: -39.7 at 500.00 MHz
Min. Graph Point: -100.0 at 1.00 MHz

**PS NEXT vs. Frequency**

Max. Graph Point: -40.8 at 479.97 MHz
Min. Graph Point: -115.4 at 1.92 MHz

**IL (dB) vs. PS NEXT (dB)**

Max. Graph Point: -40.8 at 479.97 MHz
Min. Graph Point: -115.4 at 1.92 MHz

**PS NEXT (FE) vs. Frequency**

Max. Graph Point: -38.3 at 500.00 MHz
Min. Graph Point: -99.7 at 1.27 MHz

**IL vs. Frequency**

Max. Graph Point: -1.75 at 1.00 MHz
Min. Graph Point: -40.45 at 500.00 MHz

**PS NEXT vs. Frequency**

Max. Graph Point: -39.7 at 500.00 MHz
Min. Graph Point: -40.45 at 500.00 MHz

**PS NEXT (FE) vs. Frequency**

Max. Graph Point: -38.3 at 500.00 MHz
Min. Graph Point: -99.7 at 1.27 MHz

---

© 2015 KRAMER ELECTRONICS, Ltd. All rights reserved. Reproduction in whole or in part without written permission is prohibited.
**PS ACR-F vs. Frequency**

Max. Graph Point: -39.4 at 486.65 MHz
Min. Graph Point: -98.3 at 1.74 MHz

**Shipping Information:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Dimension</th>
<th>Nominal net weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable</td>
<td>500 m</td>
<td>28.45 kg (62.72 lb)</td>
</tr>
<tr>
<td>Plywood reel</td>
<td>D450 x d220 x H330 x h300 mm</td>
<td>3.9 kg</td>
</tr>
<tr>
<td>Pallet</td>
<td>1150 x 1150 x 120 mm</td>
<td>14.1 kg</td>
</tr>
</tbody>
</table>