

Part No:

# HBTC Series



## HBTC Ultra Low Loss VNA Armored Bench Test Cable Series with 2.92mm Connectors - 46 GHz

### Features

- RoHs Compliant 
- Low Loss, Low VSWR, High Reliability
- Phase Stable over Temp: 900pp Max @ -40°C ~ 85°C
- Phase Stable vs. Flexure:  $\pm 8^\circ$  @ 40 GHz

The HASCO **HBTC** series is an Ultra Low Loss VNA Armored Bench Test Cable Series that is phase stable vs. flexure. Available with 2.92mm Male and Female connectors and rated to 46 GHz.

### Electrical

|                               |                               |                 |                 |
|-------------------------------|-------------------------------|-----------------|-----------------|
| • Impedance                   | 50 $\Omega$                   |                 |                 |
| • Frequency Range             | DC - 46 GHz                   |                 |                 |
| • Insertion Loss              | -0.79 dB/ft @ 26 GHz          |                 |                 |
| • Amplitude Stability         | $\leq \pm 0.1$ dB thru 40 GHz |                 |                 |
| • Velocity of Propagation     | 78%                           |                 |                 |
| • Time Delay                  | 1.30 ns/ft                    |                 |                 |
| • Capacitance                 | 26 pF/ft                      |                 |                 |
| • Power CW                    | 400 W @ 1 GHz                 | 125 W @ 18 GHz  | 75 W @ 40 GHz   |
| • Phase Stability vs. Flexure | $\pm 0.4^\circ$               | $\pm 1.2^\circ$ | $\pm 8.0^\circ$ |
| • RF Leakage                  | < -100 dB dB @ 18 GHz         |                 |                 |

### Mechanical

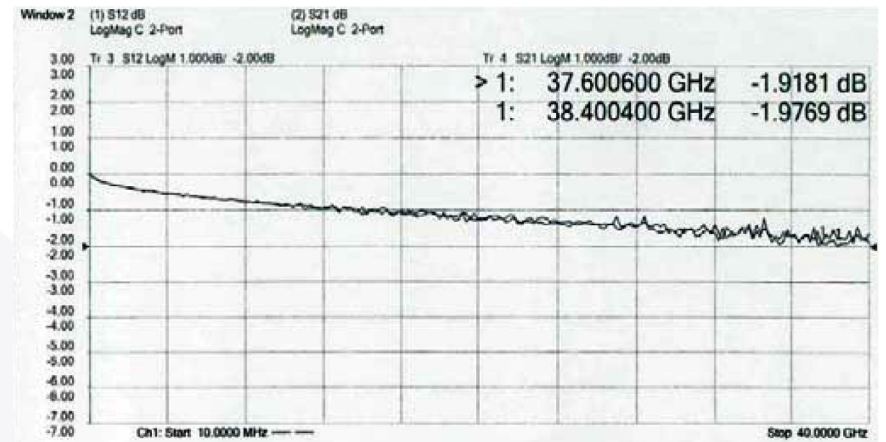
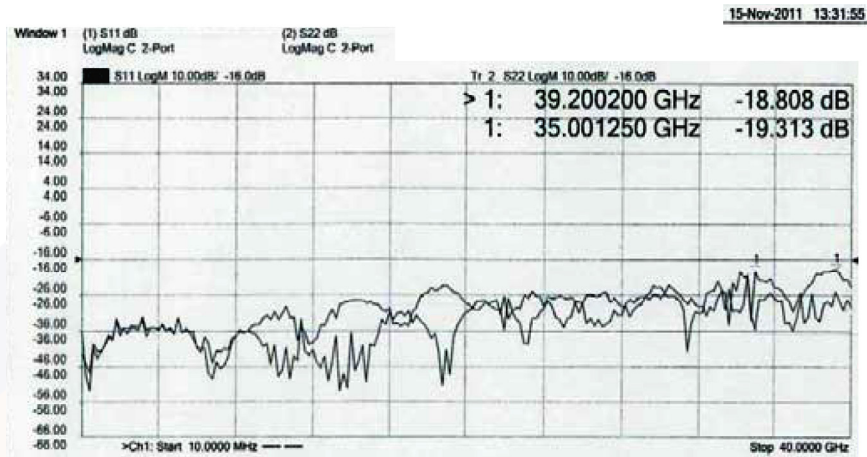
|                   |          |
|-------------------|----------|
| • Min Bend Radius | 2.0 inch |
|-------------------|----------|

### Environmental

|                     |                |
|---------------------|----------------|
| • Temperature Range | -65°C to 200°C |
|---------------------|----------------|

### Material

|                        |                            |
|------------------------|----------------------------|
| • Connector Body & Nut | Passivated Stainless Steel |
| • Dielectric           | PTFE                       |
| • Center Contact       | Gold Plated BeCu           |
| • Gasket               | Silicon                    |
| • Cable Jacket         | Silver plated Copper       |
| • Cable Armor          | Stainless Steel            |



## Test Data

2.92mm Male to 2.92mm Female  
DC - 40 GHz

| Part Number     | Length (in) | Connectors                     |
|-----------------|-------------|--------------------------------|
| HBTC-29J-29J-24 | 24          | 2.92mm Female to 2.92mm Female |
| HBTC-29P-29J-24 | 24          | 2.92mm Male to 2.92mm Female   |
| HBTC-29P-29J-24 | 30          | 2.92mm Male to 2.92mm Female   |
| HBTC-29P-29J-24 | 36          | 2.92mm Male to 2.92mm Female   |

|                                       |                  |       |       |                                                                                                                                                                                                                                                                  |                 |                                                                                                                                                                                                                                                                             |  |                      |        |       |
|---------------------------------------|------------------|-------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------|--------|-------|
| LTR                                   | DESCRIPTION      | DATE  | APPR. | DRAWN BY: NS                                                                                                                                                                                                                                                     | REVIEWED BY: JS | <div> <b>HASCO</b>   RF</div> <div>5214 Bonsai Avenue • Moorpark, CA 93021<br/>(888) 498-3242 • sales@hasco-inc.com<br/><a href="http://www.hasco-inc.com">www.hasco-inc.com</a></div> |  |                      |        |       |
| -                                     | RELEASE          | 1/25  | TC    |                                                                                                                                                                                                                                                                  | APPROVED BY: TC |                                                                                                                                                                                                                                                                             |  |                      |        |       |
| A                                     | DATASHEET UPDATE | 10/26 | TC    | THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF HASCO COMPONENTS AND SHALL NOT BE REPRODUCED, COPIED NOR USED - IN WHOLE OR IN PART - AS THE BASIS FOR THE MANUFACTURE OR SALE OF OTHER ITEMS WITHOUT THE EXPRESS, WRITTEN PERMISSION OF HASCO COMPONENTS. |                 | MATERIALS:                                                                                                                                                                                                                                                                  |  | CAGE CODE:           | SCALE: | SIZE: |
|                                       |                  |       |       |                                                                                                                                                                                                                                                                  |                 | SEE DATA SHEET                                                                                                                                                                                                                                                              |  | 0T8L4                | N/A    | A     |
|                                       |                  |       |       |                                                                                                                                                                                                                                                                  |                 | FINISHES:                                                                                                                                                                                                                                                                   |  | PART NO./DRAWING NO. |        | REV:  |
|                                       |                  |       |       |                                                                                                                                                                                                                                                                  |                 | SEE DATA SHEET                                                                                                                                                                                                                                                              |  | HBTC                 |        | A     |
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