

- Low Loss UHF/Microwave Interconnect
- Wireless Base Station Interconnect
- Low Passive Intermod

### Features & Benefits

- Lower Loss than RG/SF

#### Versions

- Superior

#### Shielding Effectiveness

- Low Passive Intermod (-155 dBc)
- Stable Loss & VSWR vs Flexing

- Excellent Connector Selection

**TCOM cables** provide the ultimate performance in a flexible cable. The high velocity gas injected foam polyethylene dielectric provides the lowest dielectric loss of any practical dielectric and silver plated flat ribbon braid make TCOM the ideal choice for uhf/microwave applications and all other commercial and military interconnect systems.

The TCOM design make them the ideal choice for jumper cables in commercial wireless (PCS, Cellular, Paging, LMR) and military systems.

**The Shielding system**, pioneered by Times Microwave Systems in the mid-sixties, consists of an inner silver plated flat ribbon braid (FSC), a spirally applied and overlapped composite aluminum tape interlayer (Intl), and an overall tin plated round wire braid (TC). The flat ribbon shield affords approximately 15% lower loss and >95 dB shielding when compared with the typical M17/RG round wire braided shield (40 to 60 dB).

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Standard M17/RG cables are shielded with high



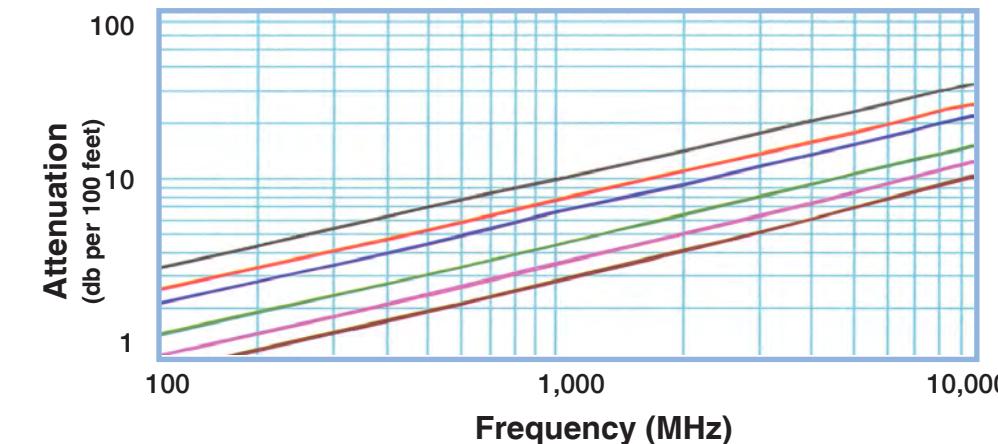
coverage single or double round wire braids. While these shields provide 40 dB and 60 dB shielding effectiveness respectively, they are not particularly stable (loss & vswr) nor is the shielding adequate for today's sensitive wireless communications and microwave military/defense applications.

**VSWR is lower** since the flat ribbons can be applied over the dielectric much more uniformly than multi-end round wire braids. The VSWR and attenuation variation due to aging and flexure is substantially lower at all frequencies, and especially above 12 GHz. TCOM cables are also available from Times that have been sweep tested for broadband VSWR and attenuation performance. Please contact the factory with your specific requirements.

**A full range of standard interface connectors** (crimp or clamp style) are available. TCOM cables can be purchased in bulk reels or as preterminated and tested cable assemblies.

- Flexible For Easy Routing

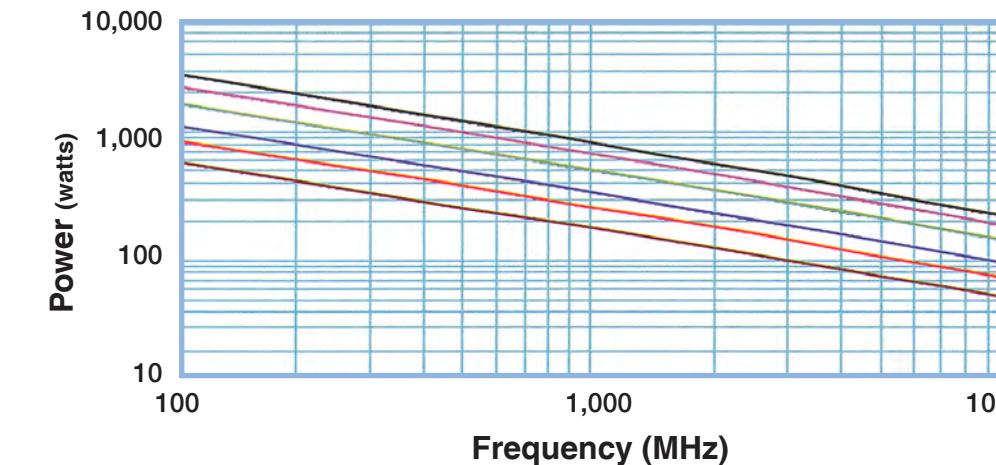
### Attenuation vs. Frequency (Typical)



| Frequency (MHz) | 30  | 50  | 150 | 450 | 900 | 2,000 | 3,000 | 4,000 | 5,000 | 8,000 | 10,000 | k1      | k2      |
|-----------------|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|--------|---------|---------|
| TCOM-200        | 1.7 | 2.2 | 3.8 | 6.6 | 9   | 14    | 18    | 21    | 23    | 30    | 34     | 0.30367 | 0.00033 |
| TCOM-240        | 1.3 | 1.6 | 2.9 | 5.0 | 7.2 | 11    | 14    | 16    | 18    | 23    | 26     | 0.22915 | 0.00033 |
| TCOM-300        | 1.1 | 1.4 | 2.4 | 4.3 | 6.1 | 9.3   | 12    | 14    | 15    | 20    | 23     | 0.19434 | 0.00033 |
| TCOM-400        | 0.7 | 0.9 | 1.5 | 2.9 | 4.2 | 6.4   | 7.9   | 9     | 11    | 14    | 16     | 0.13056 | 0.00026 |
| TCOM-500        | 0.6 | 0.7 | 1.3 | 2.3 | 3.3 | 5.0   | 6     | 7     | 8     | 11    | 13     | 0.10097 | 0.00026 |
| TCOM-600        | 0.4 | 0.6 | 1.0 | 1.8 | 2.6 | 4.1   | 5     | 6     | 7     | 9     | 11     | 0.08008 | 0.00026 |

Attenuation at Any Frequency = [ k1 x SQRT [fMHz] ] + [ k2 x Fmhz ]; dB per 100 feet

### Power Handling vs. Frequency (Maximum)



| Frequency (MHz) | 30   | 50   | 150  | 450  | 900 | 2,000 | 3,000 | 4,000 | 5,000 | 8,000 | 10,000 |
|-----------------|------|------|------|------|-----|-------|-------|-------|-------|-------|--------|
| TCOM-600        | 5201 | 4008 | 2276 | 1277 | 879 | 564   | 448   | 378   | 332   | 249   | 217    |
| TCOM-500        | 4225 | 3259 | 1856 | 1046 | 723 | 467   | 372   | 316   | 278   | 210   | 183    |
| TCOM-400        | 3121 | 2409 | 1375 | 779  | 541 | 352   | 282   | 240   | 211   | 161   | 141    |
| TCOM-300        | 2068 | 1597 | 913  | 518  | 360 | 235   | 188   | 161   | 142   | 108   | 95     |
| TCOM-240        | 1575 | 1217 | 696  | 396  | 276 | 180   | 145   | 124   | 109   | 84    | 74     |
| TCOM-200        | 1080 | 835  | 478  | 272  | 190 | 125   | 100   | 86    | 75    | 58    | 51     |

Watts; Sea Level; Ambient +40C; VSWR 1:1