



**SYCOR**  
TECHNOLOGY INC.

# MIL-C-17 (Cont'd)

## Swept VSWR and Attenuation vs Frequency:

Very small manufacturing variations can cause a coax to be unusable at certain frequencies. All the 50 ohm low smoke, low toxicity cable are subjected to a swept return loss (VSWR) and RF transmission loss (attenuation) test that assures cable performance over the entire frequency band. The VSWR (Voltage standing wave ratio) of the cable is the summation of random and periodic reflections within the cable, most commonly caused by variations within the processing equipment. The RF transmission loss is a measurement of the energy put into a cable compared to the energy out the other end of the cable.

| Mil-Spec   | M17 Number    | Inner Conductor                | Dielectric Material | D.O.D. (inches) | Number & Types of Shielding Braids | Jacket Material  | O.D. (inches) | Weight (LBS/ft) |
|------------|---------------|--------------------------------|---------------------|-----------------|------------------------------------|------------------|---------------|-----------------|
| /180-00001 | M17/2-RG6     | .0285" CCS                     | PE                  | 0.185           | 1:SC/1:BC                          | XLPO             | 0.332         | 0.092           |
| /181-00001 | M17/6-RG11    | 0.0477"<br>7/0.0159" TC        | PE                  | 0.285           | 1:BC                               | XLPO             | 0.405         | 0.108           |
| /181-00002 | M17/6-RG12    | 0.0477"<br>7/0.0159" TC        | PE                  | 0.285           | 1:BC                               | XLPO<br>w/Armour | 0.475<br>Max  | 0.132           |
| /182-00001 | M17/15-RG22   | 2 cond. 0.046"<br>7/0.0152" BC | PE                  | 0.285           | 2:TC                               | XLPO             | 0.42          | 0.142           |
| /182-00002 | M17/15-RG111  | 2 cond. 0.0456"<br>7/0.152 "BC | PE                  | 0.285           | 2:TC                               | XLPO<br>w/Armour | 0.490<br>Max  | 0.169           |
| /183-00001 | M17/28-RG58   | 0.03555"<br>19/0.0072" TC      | PE                  | 0.115           | 1:TC                               | XLPO             | 0.195         | 0.03            |
| /184-00001 | M17/29-RG59   | 0.0226" CCS                    | PE                  | 0.146           | 1:BC                               | XLPO             | 0.242         | 0.043           |
| /185-00001 | M17/30-RG62   | 0.0253" CCS                    | Air-Space<br>PE     | 0.146           | 1:BC                               | XLPO             | 0.242         | 0.042           |
| /186-00001 | M17/45-RG108  | 2 cond.0.0376"<br>7/0.0126" TC | PE                  | 0.079<br>each   | 1:TC                               | XLPO             | 0.235         | 0.041           |
| /187-00001 | M17/54-RG1222 | 0.0308"<br>27/0.005 TC         | PE                  | 0.096           | 1:TC                               | XLPO             | 0.16          | 0.023           |
| /188-00001 | M17/73-RG212  | 0.0666" SC                     | PE                  | 0.185           | 2:SC                               | XLPO             | 0.332         | 0.099           |
| /189-00001 | M17/74-RG213  | 0.0888"<br>7/0.0296" BC        | PE                  | 0.285           | 1:BC                               | XLPO             | 0.405         | 0.121           |
| /189-00002 | M17/74-RG215  | 0.0888"<br>7/0.0296" BC        | PE                  | 0.285           | 1:BC                               | XLPO<br>w/Armour | 0.475<br>Max  | 0.145           |
| /190-00001 | M17/75-RG214  | 0.0888"<br>7/0.0296 SC         | PE                  | 0.285           | 2:C                                | XLPO             | 0.425         | 0.154           |
| /191-00001 | M17/77-RG216  | 0.0477"                        | PE                  | 0.285           | 2:BC                               | XLPO             | 0.425         | 0.139           |
| /192-00001 | M17/78-RG217  | 0.106" BC                      | PE                  | 0.37            | 2:BC                               | XLPO             | 0.545         | 0.248           |
| /193-00001 | M17/79-RG218  | 0.195" BC                      | PE                  | 0.68            | 1:BC                               | XLPO             | 0.87          | 0.521           |
| /193-00002 | M17/79-RG219  | 0.195" BC                      | PE                  | 0.68            | 1:BC                               | XLPO<br>w/Armour | 0.945<br>Max  | 0.571           |
| /194-00001 | M17/84-RG223  | 0.035 SC                       | PE                  | 0.116           | 2:SC                               | XLPO             | 0.212         | 0.04            |
| /195-00001 | M17/900-RG71  | 0.0253" CCS                    | Air-Space<br>PE     | 0.146           | 1:BC/1:TC                          | XLPO             | 0.245         | 0.053           |
| /196-00001 | M17/119-RG174 | 0.0189"<br>7/0.0063" CCS       | PE                  | 0.06            | 1:TC                               | XLPO             | 0.11          | 0.0088          |
| /197-00001 | M17/155-00001 | 0.0355"<br>19/0.0072" TC       | PE                  | 0.116           | 1:TC                               | XLPO             | 0.195         | 0.031           |
| /198-00001 | M17/157-00001 | 0.0308"<br>27/0.005" TC        | PE                  | 0.096           | 1:TC                               | XLPO             | 0.16          | 0.024           |
| /199-00001 | M17/162-00001 | 0.0556" C                      | PE                  | 0.185           | 2:SC                               | XLPO             | 0.332         | 0.1             |
| /200-00001 | M17/167-00001 | 0.035" SC                      | PE                  | 0.116           | 2:SC                               | XLPO             | 0.212         | 0.044           |