

## CABLE ASSEMBLY SOLUTIONS FOR GOGO AVANCE SYSTEMS

PIC Wire & Cable® developed a series of cable assemblies approved for use with Gogo® Business Aviation's AVANCE™ L3, L5 and L5i data connectivity systems and is listed in system manuals. Assemblies are customizable and designed to meet an application's unique loss, length, weight and flexibility requirements. Pre-engineered assembly drawings are available to simplify the US Federal Aviation Administration (FAA) submission process for modifications and installations.

Proper cable assembly is critical to optimizing the full benefits of interconnect technology. PIC Wire & Cable's internal assembly facility provides certified, tested and phase matched assembly sets to simplify the system installation process.

### AVANCE Cable Options

PIC Wire & Cable offers a variety of RFMATES® and RFMATES ULTRALITE® cable solutions that meet or exceed AVANCE system performance requirements. These high quality cables were specially designed as low loss options, with the ULTRALITE line optimized for applications that require lightweight, flexible cables.

**Maximum Cable Length (Inches) by Application**

| Cable P/N | Weight in (mm) | Bend Radius in (mm) | WIFI (5.0 GHz)      |                 | TM (1.8 GHz)        |                 | Directional (0.9 GHz) |                 | Omni-Directional (0.9 GHz) *L3 Only |
|-----------|----------------|---------------------|---------------------|-----------------|---------------------|-----------------|-----------------------|-----------------|-------------------------------------|
|           |                |                     | Optimal Loss (3 dB) | Max Loss (5 dB) | Optimal Loss (3 dB) | Max Loss (5 dB) | Optimal Loss (1 dB)   | Max Loss (3 dB) | Max Loss (3.48 dB)                  |
| S86208    | 2.0 (2.9)      | 0.65 (16.51)        | 84                  | 156             | 156                 | 264             | 60                    | 228             | 264                                 |
| S33141    | 6.5 (9.7)      | 1.40 (35.56)        | 174                 | 312             | 300                 | 540             | 132                   | 444             | 516                                 |
| S55122    | 8.3 (12.4)     | 1.55 (39.37)        | 216                 | 408             | 396                 | 708             | 174                   | 588             | 696                                 |
| S22089    | 18.0 (26.8)    | 2.50 (63.50)        | N/A                 | N/A             | N/A                 | N/A             | 258                   | 852             | 1008                                |
| UH44193   | 1.9 (2.9)      | 0.80 (20.32)        | 108                 | 198             | 198                 | 348             | 84                    | 288             | 348                                 |
| UH67163   | 3.4 (5.1)      | 1.20 (30.48)        | 180                 | 336             | 336                 | 600             | 144                   | 480             | 588                                 |
| UH22089   | 7.2 (10.7)     | 1.70 (43.18)        | 324                 | 600             | 600                 | 1068            | 252                   | 852             | 1020                                |
| UH25107   | 12 (17.9)      | 2.50 (63.50)        | N/A                 | 684             | N/A                 | N/A             | 312                   | 1080            | 1284                                |

### AVANCE Connector Options

PIC Wire & Cable also has several matching SMA and TNC connectors for its RFMATES and RFMATES ULTRALITE cables to meet unique application requirements.

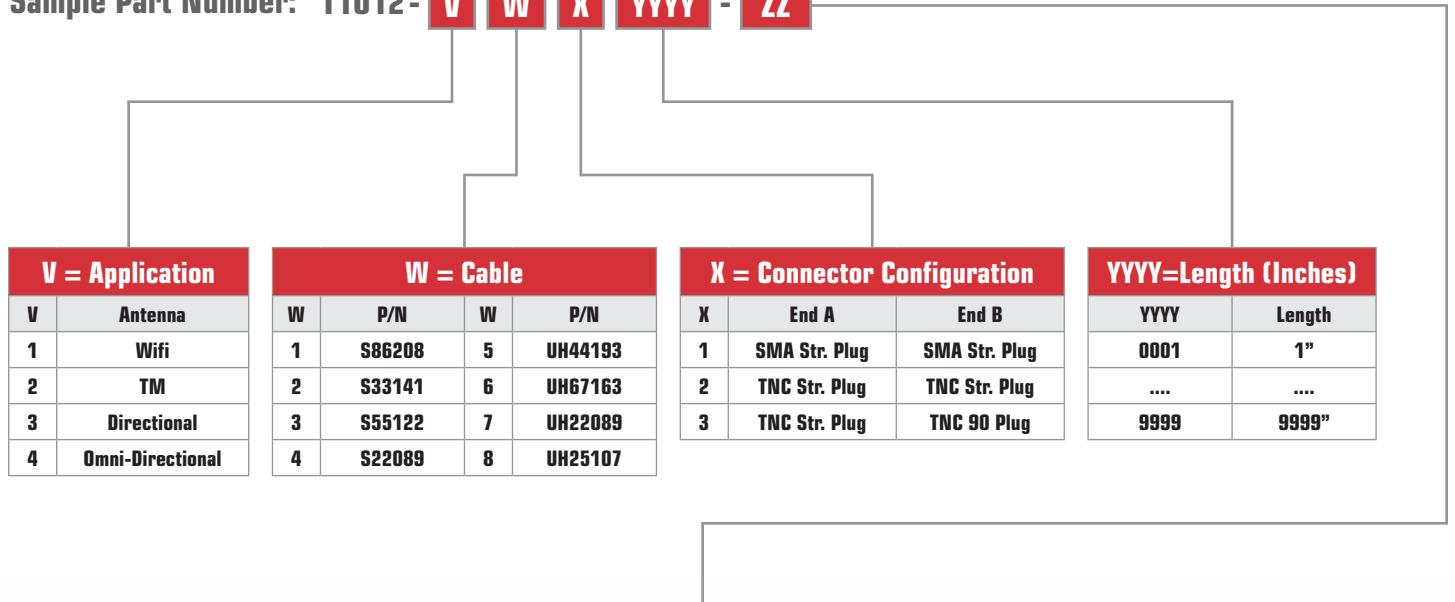
| Cable P/N | SMA Str. Plug | TNC Str. Plug | TNC 90 Plug |
|-----------|---------------|---------------|-------------|
| S86208    | 190814        | 190808        | 190809      |
| S33141    | 190314        | 190308        | 190309      |
| S55122    | 190614        | 190608        | 190609      |
| S22089    | N/A           | 190408        | 190409      |
| UH44193   | 150114        | 150108        | 150109      |
| UH67163   | 150514        | 150508        | 150509      |
| UH22089   | 150414        | 150408        | 150409      |
| UH25107   | N/A           | 190408        | 190409      |

## Assembly Part Number Builder

Accelerate the cable assembly procurement process by building a part number with design details that meet an application's specific requirements. Ready to use engineering drawings are provided to streamline the FAA submission process for part modifications and installations.

Engineering drawings for cable assemblies are available for download at [www.picwire.com/assemblies/assembly-worksheets](http://www.picwire.com/assemblies/assembly-worksheets).

Sample Part Number: **11012 - V W X YYYY - ZZ**



| V = Application |                  |
|-----------------|------------------|
| V               | Antenna          |
| 1               | Wifi             |
| 2               | TM               |
| 3               | Directional      |
| 4               | Omni-Directional |

| W = Cable |        |   |         |
|-----------|--------|---|---------|
| W         | P/N    | W | P/N     |
| 1         | S86208 | 5 | UH44193 |
| 2         | S33141 | 6 | UH67163 |
| 3         | S55122 | 7 | UH22089 |
| 4         | S22089 | 8 | UH25107 |

| X = Connector Configuration |               |               |
|-----------------------------|---------------|---------------|
| X                           | End A         | End B         |
| 1                           | SMA Str. Plug | SMA Str. Plug |
| 2                           | TNC Str. Plug | TNC Str. Plug |
| 3                           | TNC Str. Plug | TNC 90 Plug   |

| YYYY=Length (Inches) |        |
|----------------------|--------|
| YYYY                 | Length |
| 0001                 | 1"     |
| ....                 | ....   |
| 9999                 | 9999"  |

| ZZ = Sub System Designator |            |         |    |            |         |    |             |        |    |               |        |    |               |        |
|----------------------------|------------|---------|----|------------|---------|----|-------------|--------|----|---------------|--------|----|---------------|--------|
| ZZ                         | Sub System | AVANCE  | ZZ | Sub System | AVANCE  | ZZ | Sub System  | AVANCE | ZZ | Sub System    | AVANCE | ZZ | Sub System    | AVANCE |
| 01                         | TM 1       | L3 & L5 | 05 | WIFI 3     | L3 & L5 | 09 | ATG1 FWD V1 | L3     | 13 | ATG1 FWD H1   | L5     | 17 | ATG2 FWD V1   | L5     |
| 02                         | TM 2       | L3 & L5 | 06 | WIFI 4     | L3 & L5 | 10 | ATG1 FWD H1 | L3     | 14 | ATG1 RIGHT H2 | L5     | 18 | ATG2 RIGHT V2 | L5     |
| 03                         | WIFI 1     | L3 & L5 | 07 | WIFI 5     | L3 & L5 | 11 | ATG1 AFT V2 | L3     | 15 | ATG1 AFT H3   | L5     | 19 | ATG2 AFT V3   | L5     |
| 04                         | WIFI 2     | L3 & L5 | 08 | WIFI 6     | L3 & L5 | 12 | ATG1 AFT H2 | L3     | 16 | ATG1 LEFT H4  | L5     | 20 | ATG2 LEFT V4  | L5     |