#### **APPLICATION NOTE**

## **ELEVATE IN-FLIGHT WIFI CONNECTIVITY**



### CABLE ASSEMBLY SOLUTIONS FOR GOGO AVANCE SYSTEMS

PIC Wire & Cable® offers a series of high-performance cable assemblies specifically approved for use with Gogo® Business Aviation's AVANCE LX5 data connectivity systems, and are listed in the system manuals. Our customizable assemblies are designed to meet unique application requirements, including loss, length, weight, and flexibility. Selecting cable assemblies from PIC simplifies the FAA submission process for modifications and installations, thanks to our pre-engineered assembly drawings. Properly designed cable assemblies are critical to maximizing the benefits of advanced interconnect technology.

Our in-house assembly facility ensures that all assemblies are certified, tested, and phase-matched, ensuring high-quality and consistent performance.

#### **LX5 CABLE OPTIONS**

PIC offers a range of PICMates® RF and RF UltraLite cable solutions that meet or exceed AVANCE LX5 system performance requirements. These high-quality cables are designed for low-loss performance, with the UltraLite line being the ideal choice for applications demanding lightweight and flexible cables.

| MAXIMUM CABLE LENGTH (INCHES) BY APPLICATION |                                    |                        |                               |                               |                                      |  |  |  |  |
|--|------------------------------------|------------------------|-------------------------------|-------------------------------|--------------------------------------|--|--|--|--|
| Cable P/N                                    | Weight<br>Ibs/100 ft<br>(kg/100 m) | Bend Radius<br>in (mm) | LX5 WIFI RADIO 1<br>(5.0 GHz) | LX5 WIFI RADIO 2<br>(2.4 GHz) | LX5 TO FWD/AFT MB13 ANT<br>(0.9 GHz) |  |  |  |  |
|  |                                    |                        | Max Loss<br>(8 dB)            | Max Loss<br>(5 dB)            | Max Loss<br>(3 dB)                   |  |  |  |  |
| \$86208                                      | 2.0 (2.9)                          | 0.65 (16.51)           | 255                           | 228                           | 219                                  |  |  |  |  |
| \$33141                                      | 6.5 (9.7)                          | 1.40 (35.56)           | 527                           | 475                           | 460                                  |  |  |  |  |
| \$55122                                      | 8.3 (12.4)                         | 1.55 (39.37)           | 685                           | 622                           | 607                                  |  |  |  |  |
| \$22089                                      | 18.0 (26.8)                        | 2.50 (63.50)           | N/A                           | N/A                           | 889                                  |  |  |  |  |
| UH44193                                      | 1.9 (2.9)                          | 0.80 (20.32)           | 334                           | 302                           | 294                                  |  |  |  |  |
| UH67163                                      | 3.4 (5.1)                          | 1.20 (30.48)           | 567                           | 515                           | 501                                  |  |  |  |  |
| UH22089                                      | 7.2 (10.7)                         | 1.70 (43.18)           | 1003                          | 911                           | 890                                  |  |  |  |  |
| UH25107                                      | 12.0 (17.9)                        | 2.50 (63.50)           | N/A                           | N/A                           | 1114                                 |  |  |  |  |

#### LX5 CONNECTOR OPTIONS

Complementing our cable solutions, we offer a tailored selection of SMA and TNC connectors to our RF and UltraLite cables, ensuring compatibility with unique application needs.

| Cable P/N | SMA Str. Plug | TNC Str. Plug | TNC 90 Plug |
|-----------|---------------|---------------|-------------|
| \$86208   | 190814        | 190808        | 190809      |
| \$33141   | 190314        | 190308        | 190309      |
| \$55122   | 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      |



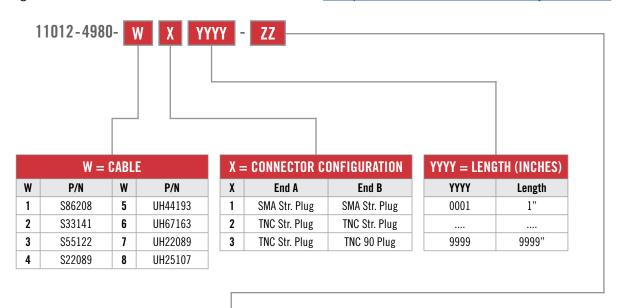
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#### **ASSEMBLY PART NUMBER BUILDER**

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 <a href="https://www.picwire.com/assemblies/assembly-worksheets">www.picwire.com/assemblies/assembly-worksheets</a>.



| ZZ = SUB SYSTEM DESIGNATOR |                |                 |    |                |                 |  |  |
|----------------------------|----------------|-----------------|----|----------------|-----------------|--|--|
| ZZ                         | FROM           | TO              | ZZ | FROM           | TO              |  |  |
| 01                         | LX5 WIFI 1     | WIFI RADIO 1    | 08 | LX5 FWD ANT-J3 | FWD MB13 ANT-J3 |  |  |
| 02                         | LX5 WIFI 2     | WIFI RADIO 1    | 09 | LX5 AFT ANT-J1 | AFT MB13 ANT-J1 |  |  |
| 03                         | LX5 WIFI 3     | WIFI RADIO 1    | 10 | LX5 AFT ANT-J3 | AFT MB13 ANT-J3 |  |  |
| 04                         | LX5 WIFI 4     | WIFI RADIO 2    | 11 | LX5 FWD ANT-J4 | FWD MB13 ANT-J4 |  |  |
| 05                         | LX5 WIFI 5     | WIFI RADIO 2    | 12 | LX5 FWD ANT-J2 | FWD MB13 ANT-J2 |  |  |
| 06                         | LX5 WIFI 6     | WIFI RADIO 2    | 13 | LX5 AFT ANT-J4 | AFT MB13 ANT-J4 |  |  |
| 07                         | LX5 FWD ANT-J1 | FWD MB13 ANT-J1 | 14 | LX5 AFT ANT-J2 | AFT MB13 ANT-J2 |  |  |



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