

|                                            |                              |                          |                       |                   |                   |                       |                             |                             |                              |                              |                             |                             |
|--------------------------------------------|------------------------------|--------------------------|-----------------------|-------------------|-------------------|-----------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
|                                            |                              | Handheld - Small         | Handheld - Smartphone | Handheld - Rugged | Asset Tracking    | Portable              | Semi-Fixed (Cobham Antenna) | Semi-Fixed (Hughes Antenna) | Vehicular - Large            | Vehicular- Small             | Maritime – Large            | Maritime - Small            |
| Antenna Model                              |                              | MexSat Low Profile (RUT) | MexSat Stub (RUT)     | MexSat Stub (RUT) | MexSat Stub (RUT) | MexSat Portable (RUT) | MexSat Semi-Fixed (RUT)     | MexSat Semi-Fixed (RUT)     | MexSat Vehicular Large (RUT) | MexSat Vehicular Small (RUT) | MexSat Maritime Large (RUT) | MexSat Maritime Small (RUT) |
| Antenna Manufacturer                       |                              | Hughes                   | Maxtena               | Maxtena           | Maxtena           | Scan Antenna A/S      | Cobham Antenna systems      | Hughes                      | Spacecom                     | Spacecom                     | Spacecom                    | Spacecom                    |
| Number of Units                            |                              | 5                        | 5                     | 5                 | 5                 | 5                     | 5                           | 5                           | 5                            | 5                            | 5                           | 5                           |
| Antenna transmit gain                      | - dBi @ 1626.5-1660.5 MHz    | -0.36                    | 1.5                   | 1.5               | 1.5               | 11.8                  | 17                          | 13.2                        | 11.98                        | 10.75                        | 11.98                       | 10.6                        |
| Antenna receive gain                       | - dBi @ 1525.0 to 1559.0 MHz | -0.36                    | 1.5                   | 1.5               | 1.5               | 12                    | 17                          | 12.5                        | 12.64                        | 10.55                        | 11.52                       | 10.4                        |
| Terminal High Power Amplifier Power Output | - Watts                      | 0.3                      | 1.0                   | 1.0               | 1.0               | 0.7                   | 0.6                         | 1.5                         | 4.0                          | 2.7                          | 4.0                         | 2.8                         |
| Terminal max EIRP                          | - dBW (W)                    | -5 (0.3)                 | 1.5 (1.4)             | 1.5 (1.4)         | 1.5 (1.4)         | 10.2 (10.5)           | 15 (31.6)                   | 15 (31.6)                   | 18 (63.1)                    | 15 (31.6)                    | 18 (63.1)                   | 15 (31.6)                   |

|                                         |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
|-----------------------------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>Directional</b>                      |  | No                       | No                       | No                       | No                       | Yes                      | Yes                      | Yes                      | Yes                      | Yes                      | Yes                      | Yes                      |
| <b>Beamwidth</b>                        |  | N/A                      | N/A                      | N/A                      | N/A                      | 3 dB                     | 3 dB                     | 3 dB                     | 3 dB                     | 3 dB                     | 3 dB                     | 3 dB                     |
| <b>Horizontal Orientation (+/- deg)</b> |  | N/A                      | N/A                      | N/A                      | N/A                      | 22                       | 12                       | 17                       | 10                       | 25                       | 18                       | 18                       |
| <b>Vertical Orientation (+/- deg)</b>   |  | N/A                      | N/A                      | N/A                      | N/A                      | 22                       | 12                       | 17                       | 24                       | 20                       | 22                       | 28                       |
| <b>Tx Polarization</b>                  |  | LHCP                     | LHCP                     | LHCP                     | LHCP                     | LHCP                     | LHCP                     | LHCP                     | LHCP                     | LHCP                     | LHCP                     | LHCP                     |
| <b>Tx Max bandwidth</b>                 |  | 117ksps                  | 117ksps                  | 117ksps                  | 117ksps                  | 117ksps                  | 117ksps                  | 117ksps                  | 117ksps                  | 117ksps                  | 117ksps                  | 117ksps                  |
| <b>Tx Min bandwidth</b>                 |  | 23.4ksps                 | 23.4ksps                 | 23.4ksps                 | 23.4ksps                 | 23.4ksps                 | 23.4ksps                 | 23.4ksps                 | 23.4ksps                 | 23.4ksps                 | 23.4ksps                 | 23.4ksps                 |
| <b>Modulation</b>                       |  | $\pi/4$ -QPSK<br>16-APSK | $\pi/4$ -QPSK<br>16-APSK | $\pi/4$ -QPSK<br>16-APSK | $\pi/4$ -QPSK<br>16-APSK | $\pi/4$ -QPSK<br>16-APSK | $\pi/4$ -QPSK<br>16-APSK | $\pi/4$ -QPSK<br>16-APSK | $\pi/4$ -QPSK<br>16-APSK | $\pi/4$ -QPSK<br>16-APSK | $\pi/4$ -QPSK<br>16-APSK | $\pi/4$ -QPSK<br>16-APSK |

### **Appendix A – Technical Information of METs**