

## GS 9.0M RING-FOCUS ESA PERFORMANCE SPECIFICATIONS

| NO                           | SPECIFICATIONS                        | C-RECEIVE                                  | C-TRANSMIT    | Ku-RECFIVE    | Ku-TRANSMIT |       |
|------------------------------|---------------------------------------|--|---------------|---------------|-------------|-------|
| 1                            | Frequency (GHz)                       | 3.625-4.2                                  | 5.85-6.425    | 10.95-12.75   | 14.0-14.5   |       |
| 2                            | Typical Gain (dBi)                    | 49.9                                       | 53.1          | 59.2          | 60.4        |       |
| 3                            | VSWR                                  | 1.25: 1                                    | 1.25: 1       | 1.25: 1       | 1.25: 1     |       |
| 4                            | Beam width                            | -3dB                                       | 0.74°         | 0.49°         | 0.24°       | 0.20° |
|                              |                                       | -15dB                                      | 1.48°         | 0.98°         | 0.49°       | 0.40° |
| 5                            | Antenna Noise Temperature(K°)         | 2/4 port Feed                              |               | 2/4 port Feed |             |       |
|                              | 10°Elevation                          | 35° K/40° K                                |               | 60° K /66° K  |             |       |
|                              | 20°Elevation                          | 27° K /34° K                               |               | 50° K /56° K  |             |       |
|                              | 40°Elevation                          | 24° K/30° K                                |               | 44° K /50° K  |             |       |
| 6                            | Power Handing Capability              |  | 5kw / port    |               | 1KW/port    |       |
| 7                            | Feed interface                        | CPR-229G                                   | CPR-159G/137G | WR-75         | WR-75       |       |
| 8                            | Feed Insertion Loss dB                | 0.15/0.3                                   | 0.2           | 0.4/0.45      | 0.4         |       |
| 9                            | Port-port Isolation (Tx-Rx)           | 35 dB                                      | 85 dB         | 35 dB         | 85 dB       |       |
| 10                           | Rx-Rx, Tx-Tx Linear                   | 30 dB                                      | 30dB          | 30dB          | 30dB        |       |
| 11                           | Tx-Tx, Rx-Rx Circular                 | 21 dB                                      | 21 dB         |               |             |       |
| 12                           | Cross Polarization Isolation(on axis) | 35 dB                                      | 35 dB         | 35dB          | 35dB        |       |
| 13                           | Axial ratio, dB(Ratio)                | 1.8/0.5dB                                  | 1.8/0.5dB     |               |             |       |
| 14                           | Radiation pattern:<br>First Sidelobe  | Meet CCIR.580-4                            |               |               |             |       |
| MECHANICAL SPECIFICATIONS    |                                       |  |               |               |             |       |
| 15                           | Azimuth Travel                        | ±90°                                       |               |               |             |       |
| 16                           | Elevation Travel                      | 0° to 90°                                  |               |               |             |       |
| 17                           | Polarization Travel Rate              | 1° /s                                      |               |               |             |       |
| 18                           | Surface Accuracy                      | 0.5mm(R.M.S)                               |               |               |             |       |
| 19                           | Paint Color                           | White paint                                |               |               |             |       |
| ENVIRONMENTAL SPECIFICATIONS |                                       |  |               |               |             |       |
| 20                           | Operational winds                     | 45 mi/h(72km/h)gusts to 60 mi/h(97km/h)    |               |               |             |       |
| 21                           | Survival winds                        | 125mi/h(200km/h)                           |               |               |             |       |
| 22                           | Ambient Temperature                   | -45° to 60°                                |               |               |             |       |
| 23                           | Relative Humidity                     | 10% to 100%                                |               |               |             |       |
| 24                           | Seismic(Survival)                     | 0.3 G' s horizontal.<br>0.15 G' s vertical |               |               |             |       |