



Norsat
International Inc.



Innovative Communication Solutions

Norsat SigmaLink™

The new Norsat SigmaLink™ is the latest in a series of transportable satellite terminals. The SigmaLink™ is ideally suited to provide broadband connectivity for base camps or other prolonged missions where assignments are temporary but deployment is protracted. With simple setup and alignment procedures, personnel with minimal training can have the Norsat SigmaLink™ up and transmitting in minutes.

Flexible. Intelligent. Rugged.

The Norsat SigmaLink™ was designed from the ground up to deliver broadband data connectivity in a transportable, rugged and easy-to-use package. The terminal can be easily configured to meet varying needs; it includes a 1.8m or 2.4m antenna, interchangeable Ku/X/C band capability, various power amplifiers options, positioner, controller, pointing tools, and different system configurations (pointing box and/or baseband configuration). Norsat is also the first in the industry to incorporate an easy-to-use graphical interface for antenna alignment, satellite acquisition, peaking and transmitter control, as well as access to the built-in spectrum analyzer, beacon detector, and DVB receiver.



The Norsat Advantage

Only the Norsat SigmaLink™ provides a quick assembly platform that can be set up in less than 15 minutes without tools. It comes complete with pointing tools (compass, inclinometer, and GPS) to aid in satellite alignment. The sophisticated LinkControl™ software together with an easy-to-use pointing box, or Satellite Acquisition Assistant (SAA), makes alignment and acquisition easy for even novice operators. To further simplify operation in the field, a full range of settings can be pre-configured in user selectable profiles before the Norsat SigmaLink™ is sent out on assignment.

Flexible

- Ku/X/C band capable
- 1.8 M or 2.4 M antenna for greater throughput
- Available with pointing box (SAA) and/or baseband configuration
- Configurable to operate on any commercial satellite at any time

Intelligent

- Quick and simple assembly
- Assisted-acquire via easy-to-use SAA
- Intuitive graphical software interface
- Built-in spectrum analyzer, beacon detector, DVB receiver
- Software control of transmitter

Rugged

- Packaged in ruggedized industrial cases
- Built tough and weatherized for harsh environments
- Shock protected assemblies
- Compliant with military environmental standards



Norsat
International Inc.

United States
+1 410 263 8165

EMEA
+44 (0) 7887 508 911
+336 71 38 72 27

Canada and Rest of World
+1 604 821 2800

Toll Free
+1 800 644 4562

Online
sales@norsat.com
www.norsat.com

1.8M SigmaLink™ Baseband Variant

| System | C-Band | | X-Band | | Ku-Band | |
|--------------------|--|---|--|---------------|--|---|
| | Rx | Tx | Rx | Tx | Rx | Tx |
| EIRP | N/A | 53.3 dBW | N/A | >61 dBW | N/A | 58.3 dBW |
| G/T | 15.3 dB/K | N/A | >19 dB/K | N/A | 23.7 dB/K | N/A |
| Antenna | | | | | | |
| Frequency | 3.4 - 4.2 GHz | 5.85 - 6.425 GHz | 7.25 - 7.75 GHz | 7.9 - 8.4 GHz | 10.95 - 12.75 GHz | 13.75 - 14.5 GHz |
| Midband Gain | 35.4 dBi | 39.3 dBi | 41 dBi | 41.7 dBi | 45.1 dBi | 46.8 dBi |
| X-pol | 30 dB on axis, 23 dB within 1 dB contour | 30 dB on axis, 23 dB within 1 dB contour | N/A | N/A | 35dB on axis, 23 dB within 1db contour | 35dB on axis, 23 dB within 1db contour |
| Axial Ratio | N/A | N/A | 1.5 dB | 1.5 dB | N/A | N/A |
| Sidelobe Isolation | ITU 580 / IESS 207 | | Meets DSCS | | Meets IESS 208 | |
| Tx - Rx | -60 dB | N/A | -110 dB | N/A | -85 dB | N/A |
| Rx - Tx | N/A | -50 dB | N/A | -110 dB | N/A | -30 dB |
| Reflector Size | 1.8m, 4 piece segmented reflector, offset feed | | 1.8m, 4 piece segmented reflector, offset feed | | 1.8m, 4 piece segmented reflector, offset feed | |
| Antenna Travel | | | | | | |
| Az | +/- 35 degrees fine adjust | | +/- 35 degrees fine adjust | | +/- 35 degrees fine adjust | |
| EI | 0 - 90 degrees | | 0 - 90 degrees | | 0 - 90 degrees | |
| Pol | +/- 90 degrees | | +/- 90 degrees | | +/- 90 degrees | |
| Feed | 2-port linear | | 2-port circular | | 2-port linear | |

| Transmit | C-Band | X-Band | Ku-Band |
|---------------------|--------------------|--------------------|------------------|
| Output Frequency | 5.85 - 6.425 GHz | 7.9 - 8.4 GHz | 13.75 - 14.5 GHz |
| Reference | 10 MHz | 10 MHz | 10 MHz |
| Reference Level | 0 +/- 5 dBm | 0 +/- 5 dBm | 0 +/- 5 dBm |
| Output Power @ P1dB | 40 W | 175 W | 25 W |
| Gain (typical) | 77 dB | 84 dB | 50 dB |
| Spectral Regrowth | -26 dBc @ 44.7 dBm | -26 dBc @ 45.5 dBm | -26 dBc @ 44 dBm |

| Receive | C-Band | X-Band | Ku-Band |
|-------------------------|--|--|--|
| LNB NF | 0.5 | 0.8 | 0.8 |
| Reference | 10 MHz | 10 MHz | 10 MHz |
| Reference Level | -5 +/- 5 dBm | +2 +/- 5 dBm | +2 +/- 5 dBm |
| Phase Noise | -73 dBc/Hz at 1 kHz -83 dBc/Hz at 10 kHz -93 dBc/Hz at 100 kHz | -75 dBc/Hz at 1 kHz -85 dBc/Hz at 10 kHz -95 dBc/Hz at 100 kHz | -65 dBc/Hz at 1 kHz -75 dBc/Hz at 10 kHz -85 dBc/Hz at 100 kHz |
| Input VSWR | 2.2 : 1 | 2.0 : 1 | 2.2 : 1 |
| Output VSWR | 2.2 : 1 | 1.5 : 1 | 2.2 : 1 |
| Conversion Gain Typical | 65 dBm | 55 dBm | 65 dBm |
| Output P1 dB | 9 dBm | 5 dBm | 7 dBm |
| Power Req | 15 - 24 V on IF cable | 15 - 24 V on IF cable | 15 - 24 V on IF cable |
| Current Drain | 550 mA | 300 mA | 200 mA |

Shock Protected Baseband

| 8 Rack Unit | |
|----------------------------|---|
| 1st shelf (2RU): | Baseband distributes Tx IF from two modems to the SSPA and distributes Rx IF from LNB to modems and SAA |
| (RF Distribution Assembly) | |
| 2nd shelf (1RU): | SCPC modem (options and features per customer spec) |
| (CDM 625 modem) | |
| 3rd shelf (1RU): | SCPC modem (options and features per customer spec) |
| (CDM 625 modem) | (future use) |
| 4th shelf (2RU): | Router (options and features per customer spec) |
| (Cisco 2911 router) | |
| 5th shelf (1RU): | SAA Module Contains an integrated spectrum analyzer, received signal strength meter, and DVB receiver |
| (SAA/PS) | PS supplies up to 100W @ 24V (for IDU), up to 400W @ 48V (for SSPA power supply) |
| 6th shelf (1RU): | Distributes AC throughout rack |
| (AC-Distribution) | |

Shock Protected UPS

| 6 Rack Unit | |
|-------------------------|------------------------------|
| 1st shelf (3RU): | Electronics |
| 2nd shelf (3RU): | Batteries |
| Capacity | 3000 VA/ 2100W |
| Universal Input | 90 - 264 Volts 47 - 63 Hz |
| Output Voltage | 120 V |
| Reserve | 5 minutes @ full capacity |
| Temperature | 0 - 40° C |

Ruggedized System Controller

| | |
|-------------------------|---|
| Operating System | Microsoft(R) XP Tablet Edition |
| Screen | 264mm Touchscreen XGA LCD, TFT sunlight readable |
| Keyboard | 87 Key Compact, Sealed |
| CPU | Intel® Core™ Duo Processor L2400 (1.06 GHz) |
| Physical | Low power, shock mounted, fully sealed Ruggedized MIL-Spec Laptop |
| MIL-STD 810F | 1RU 254mm deep rack enclosure 482 x 44 x 254mm (WxHxD) |
| | 514.5 I (vibration) |
| | 516.5 IV (freefall) |
| | 501.4 I & II (stabilized temp.) |
| | 503.4 I (sudden changes) |
| | 506.4 III (falling or sprayed liquids) |

Indoor Power Supply

| | |
|-----------------------|-----------------------------|
| Prime Power | 115 / 230 VAC 50 / 60 Hz |
| Output Voltage | 48V / 24V |
| Consumption | < 500 VAC |

Interfacility Link Cable

| | |
|---------------|---|
| Length | 10m (Standard) 30m (Optional) longer lengths available on request |
|---------------|---|

Environmental

| | |
|-----------------------|---|
| Operating Temp | -30 to +50 °C (Antenna/RF) 0 to +50 °C (Indoor Equipment) |
| Rainfall | 50mm/h Operational 100mm/h Survival |
| Wind Speed | 72km/h Operational 108km/h Survival |
| Humidity | 100% condensing (Antenna / RF) 5 - 95% non-condensing (Indoor Equipment) |

Packaging

| 10 cases total | | |
|----------------|--------------------------|---|
| Case 1 | Pedestal Case | 43cm x 73cm x 84cm 29.5kg |
| Case 2 | Boom/Legs Case | 26cm x 46cm x 1.27cm 29.5kg |
| Case 3 | Reflector Case 1 | 36cm x 99cm x 1.04cm 40.9kg |
| Case 4 | Reflector Case 2 | 36cm x 99cm x 1.04cm 40.9kg |
| Case 5 | Baseband Case | 68.6cm x 61.6cm x 88.6cm 66.8kg (est.) |
| Case 6 | UPS Case | 68.6cm x 47.3cm x 88.6cm 71.3kg (est.) |
| Case 7 | X-Band 125W SSPA | 51.8cm x 39.3cm x 79.5cm 35kg (est.) |
| Case 8 | X-Band Feed, LNB, cables | 51.8cm x 31.0cm x 79.5cm 24.5kg (est.) |
| Case 9 | Misc. Equipment | 51.8cm x 31.0cm x 79.5cm 24.5kg (est.) |
| Case 10 | Misc. Equipment | 51.8cm x 31.0cm x 79.5cm 24.5kg (est.) |



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United States
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EMEA
+336 71 38 72 27

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www.norsat.com

1.8M SigmaLink™ SAA Variant

| System | C-Band | | X-Band | | Ku-Band | |
|--------------------|--|---|--|---------------|--|---|
| | Rx | Tx | Rx | Tx | Rx | Tx |
| EIRP | N/A | 53.3 dBW | N/A | 55.2 dBW | N/A | 58.3 dBW |
| G/T | 15.3 dB/K | N/A | 19.6 dB/K | N/A | 23.7 dB/K | N/A |
| Antenna | | | | | | |
| Frequency | 3.4 - 4.2 GHz | 5.85 - 6.425 GHz | 7.25 - 7.75 GHz | 7.9 - 8.4 GHz | 10.95 - 12.75 GHz | 13.75 - 14.5 GHz |
| Midband Gain | 35.4 dBi | 39.3 dBi | 41 dBi | 41.7 dBi | 45.1 dBi | 46.8 dBi |
| X-pol | 30 dB on axis, 23 dB within 1 dB contour | 30 dB on axis, 23 dB within 1 dB contour | N/A | N/A | 35dB on axis, 23 dB within 1db contour | 35dB on axis, 23 dB within 1db contour |
| Axial Ratio | N/A | N/A | 1.5 dB | 1.5 dB | N/A | N/A |
| Sidelobe Isolation | ITU 58/ IESS 207 | | Meets DSCS | | Meets IESS 208 | |
| Tx - Rx | -60 dB | N/A | -110 dB | N/A | -85 dB | N/A |
| Rx - Tx | N/A | -50 dB | N/A | -110 dB | N/A | -30 dB |
| Reflector Size | 1.8m, 4 piece segmented reflector, offset feed | | 1.8m, 4 piece segmented reflector, offset feed | | 1.8m, 4 piece segmented reflector, offset feed | |
| Antenna Travel | | | | | | |
| Az | +/- 35 degrees fine adjust | | +/- 35 degrees fine adjust | | +/- 35 degrees fine adjust | |
| EI | 0 - 90 degrees | | 0 - 90 degrees | | 0 - 90 degrees | |
| Pol | +/- 90 degrees | | +/- 90 degrees | | +/- 90 degrees | |
| Feed | 2-port linear | | 2-port circular | | 2-port linear | |

| Transmit | C-Band | X-Band | Ku-Band |
|---------------------|------------------|--------------------|------------------|
| | Output Frequency | 5.85 - 6.425 GHz | 7.9 - 8.4 GHz |
| Reference | 10 MHz | 10 MHz | 10 MHz |
| Reference Level | 0 +/- 5 dBm | 0 +/- 5 dBm | 0 +/- 5 dBm |
| Output Power @ P1dB | 40 W | 35 W | 25 W |
| Gain (typical) | 50 dB | 65 dB | 65 dB |
| Spectral Regrowth | -26 dBc @ 46 dBm | -26 dBc @ 45.5 dBm | -26 dBc @ 44 dBm |

| Receive | C-Band | X-Band | Ku-Band |
|-------------------------|--|--|--|
| | LNB NF | 0.5 | 0.8 |
| Reference | 10 MHz | 10 MHz | 10 MHz |
| Reference Level | -2 +/- 5 dBm | +2 +/- 5 dBm | +2 +/- 5 dBm |
| Phase Noise | -73 dBc/Hz at 1 kHz -83 dBc/Hz at 10 kHz -93 dBc/Hz at 100 kHz | -75 dBc/Hz at 1 kHz -85 dBc/Hz at 10 kHz -95 dBc/Hz at 100 kHz | -73 dBc/Hz at 1 kHz -85 dBc/Hz at 10 kHz -95 dBc/Hz at 100 kHz |
| Input VSWR | 2.2 : 1 | 2.0 : 1 | 2.2 : 1 |
| Output VSWR | 2.2 : 1 | 1.5 : 1 | 2.2 : 1 |
| Conversion Gain Typical | 65 dBm | 55 dBm | 65 dBm |
| Output P1 dB | 9 dBm | 5 dBm | 7 dBm |
| Power Req | 15 - 24 V on IF cable | 15 - 24 V on IF cable | 15 - 24 V on IF cable |
| Current Drain | 550 mA | 300 mA | 200 mA |

Satellite Acquisition Assistant

Includes Inclinometer, Compass, GPS, SA / RSSI, DVB Receiver, Interface with laptop



Outdoor Power Supply

| | |
|----------------|---------------|
| Prime Power | 115 / 230 VAC |
| | 50 / 60 Hz |
| Output Voltage | 24 V DC |
| Consumption | < 500 VA AC |

Interfacility Link Cable

| | |
|--------|---|
| Length | 10m (Standard) 30m (Optional) longer lengths available on request |
|--------|---|

Environmental

| | |
|----------------|---|
| Operating Temp | -30 to +50 °C (Antenna/RF) 0 to +50 °C (Indoor Equipment) |
| Rainfall | 50mm/h Operational 100mm/h Survival |
| Wind Speed | 72km/h Operational 108km/h Survival |
| Humidity | 100% condensing (Antenna / RF) 5 - 95% non-condensing (Indoor Equipment) |

Built-in Military Grade System Controller

| | |
|-------|---------------|
| Modem | User supplied |
|-------|---------------|



Norsat
International Inc.

United States
+1 410 263 8165

EMEA
+336 71 38 72 27

Canada and Rest of World
+1 604 821 2800

Toll Free
+1 800 644 4562

Online
sales@norsat.com
www.norsat.com

2.4M SigmaLink™ Baseband Variant

| System | C-Band | | X-Band | | Ku-Band | |
|--------|-----------|----------|-----------|----------|-----------|----------|
| | Rx | Tx | Rx | Tx | Rx | Tx |
| EIRP | N/A | 56.6 dBW | N/A | 58.7 dBW | N/A | 61.6 dBW |
| G/T | 18.5 dB/K | N/A | 23.5 dB/K | N/A | 27.2 dB/K | N/A |

| Antenna | | | | | | |
|----------------|--|------------------|--|---------------|--|------------------|
| Frequency | 3.625 - 4.2 GHz | 5.85 - 6.425 GHz | 7.25 - 7.75 GHz | 7.9 - 8.4 GHz | 10.95 - 12.75 GHz | 13.75 - 14.5 GHz |
| Midband Gain | 38 dBi | 42.2 dBi | 43.7 dBi | 44.3 dBi | 47.6 dBi | 49.2 dBi |
| X-pol | N/A | N/A | N/A | N/A | -30dB on axis | -30dB on axis |
| Axial Ratio | 3.0 | 2.3 | 1.5 dB | 1.5 dB | N/A | N/A |
| Sidelobe | ITU 580 / IESS 207 | | Meets DSCS | | Meets IESS 208 | |
| Isolation | | | | | | |
| Tx - Rx | -60 dB | 0 dBm input | -110 dB | 0 dBm input | -110 dB | 0 dBm input |
| Rx - Tx | 0 dBm input | -60 dB | 0 dBm input | -110 dB | 0 dBm input | -35 dB |
| Reflector Size | 2.4m, 4 piece segmented reflector, offset feed | | 2.4m, 4 piece segmented reflector, offset feed | | 2.4m, 4 piece segmented reflector, offset feed | |
| Antenna Travel | | | | | | |
| Az | ± 35° fine adjust (360° coarse) | | ± 35° fine adjust (360° coarse) | | ± 35° fine adjust (360° coarse) | |
| EI | 5 - 90° | | 5 - 90° | | 5 - 90° | |
| Pol | ± 90° | | ± 90° | | ± 90° | |
| Feed | 2-port circular | | 2-port circular | | 2-port linear | |

| Transmit | | | |
|-------------------|------------------|----------------|------------------|
| | C-Band | X-Band | Ku-Band |
| Output Frequency | 5.85 - 6.425 GHz | 7.9 - 8.4 GHz | 13.75 - 14.5 GHz |
| Reference | 10 MHz | 10 MHz | 10 MHz |
| Reference Level | 0 +/- 5 dBm | 0 +/- 5 dBm | 0 +/- 5 dBm |
| Output Power | 40 W | 40 W | 25 W |
| @ P1dB | | | |
| Gain (typical) | 70 dB | 70 dB | 70 dB |
| Spectral Regrowth | -26 dBc @ P1dB | -26 dBc @ P1dB | -26 dBc @ P1dB |

| Receive | | | |
|-----------------|-----------------------|-----------------------|-----------------------|
| LNB NF | 0.5 | 0.8 | 0.8 |
| Reference | 10 MHz | 10 MHz | 10 MHz |
| Reference Level | -5 +/- 5 dBm | +2 +/- 5 dBm | +2 +/- 5 dBm |
| Phase Noise | -73 dBc/Hz at 1 kHz | -75 dBc/Hz at 1 kHz | -65 dBc/Hz at 1 kHz |
| | -83 dBc/Hz at 10 kHz | -85 dBc/Hz at 10 kHz | -75 dBc/Hz at 10 kHz |
| | -93 dBc/Hz at 100 kHz | -95 dBc/Hz at 100 kHz | -85 dBc/Hz at 100 kHz |
| Input VSWR | 1.5 : 1 | 1.3 : 1 | 1.5 : 1 |
| Output VSWR | 1.3 : 1 | 1.3 : 1 | 1.3 : 1 |
| Conversion Gain | 65 dBm | 55 dBm | 65 dBm |
| Typical | | | |
| Output P1 dB | 9 dBm | 5 dBm | 7 dBm |
| Power Req | 15 - 24 V on IF cable | 15 - 24 V on IF cable | 15 - 24 V on IF cable |
| Current Drain | 550 mA | 300 mA | 200 mA |

| Shock Protected Baseband | |
|--------------------------|---|
| Top Rack Unit: | System Controller, Power Supply |
| Middle Rack Unit: | Pointing Tools (Spectrum Analyzer, DVB Receiver) SSPA Control and Management Ethernet Switch |
| Bottom Rack Unit: | Modem (user supplied) |

| Ruggedized System Controller | |
|------------------------------|---|
| Operating System | Microsoft(R) XP Tablet Edition |
| Screen | 264mm Touchscreen XGA LCD, TFT sunlight readable |
| Keyboard | 87 Key Compact, Sealed |
| CPU | Intel® Core™ Duo Processor L2400 (1.06 GHz) Low power, shock mounted, fully sealed |
| Physical | Ruggedized MIL-Spec Laptop 1RU 254mm deep rack enclosure 482 x 44 x 254mm (WxHxD) |
| MIL-STD 810F | 514.5 I (vibration) 516.5 IV (freefall) 501.4 I & II (stabilized temp.) 503.4 I (sudden changes) 506.4 III (falling or sprayed liquids) |

| Indoor Power Supply | |
|---------------------|-----------------------------|
| Prime Power | 115 / 230 VAC 50 / 60 Hz |
| Output Voltage | 48V / 24V |
| Consumption | < 500 VAAC |

| Interfacility Link Cable | |
|--------------------------|---|
| Length | 10m (Standard) 30m (Optional) longer lengths available on request |

| Environmental | |
|----------------|--|
| Operating Temp | -40 to +60°C Operational (ODU) -50 to +70°C Survival (ODU) 0 - 50°C (IDU) |
| Rainfall | 50.8mm/h Operational 101.6mm/h Survival |
| Wind Speed | Up to 45 km/h Operational (no ballast or anchors) 30 Gusting to 45 km/h Operational (ballast or anchors) 96km/h Survival |
| Humidity | 0 - 100% condensing (Antenna / RF) 5 - 95% non-condensing (Indoor Equipment) |



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United States
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EMEA
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sales@norsat.com
www.norsat.com

2.4M SigmaLink™ SAA Variant

| System | C-Band | | X-Band | | Ku-Band | |
|--------------------|--|------------------|--|---------------|--|------------------|
| | Rx | Tx | Rx | Tx | Rx | Tx |
| EIRP | N/A | 56.6 dBW | N/A | 58.7 dBW | N/A | 61.6 dBW |
| G/T | 18.5 dB/K | N/A | 23.5 dB/K | N/A | 27.2 dB/K | N/A |
| Antenna | | | | | | |
| Frequency | 3.625 - 4.2 GHz | 5.85 - 6.425 GHz | 7.25 - 7.75 GHz | 7.9 - 8.4 GHz | 10.95 - 12.75 GHz | 13.75 - 14.5 GHz |
| Midband Gain | 38 dBi | 42.2 dBi | 43.7 dBi | 44.3 dBi | 47.6 dBi | 49.2 dBi |
| X-pol | N/A | N/A | N/A | N/A | -30dB on axis | -30dB on axis |
| Axial Ratio | 3.0 | 2.3 | 1.5 dB | 1.5 dB | N/A | N/A |
| Sidelobe Isolation | ITU 580 / IESS 207 | | Meets DSCS | | Meets IESS 208 | |
| Tx - Rx | -60 dB | 0 dBm input | -110 dB | 0 dBm input | -110 dB | 0 dBm input |
| Rx - Tx | 0 dBm input | -60 dB | 0 dBm input | -110 dB | 0 dBm input | -35 dB |
| Reflector Size | 2.4m, 4 piece segmented reflector, offset feed | | 2.4m, 4 piece segmented reflector, offset feed | | 2.4m, 4 piece segmented reflector, offset feed | |
| Antenna Travel | ± 35° fine adjust (360° coarse) | | ± 35° fine adjust (360° coarse) | | ± 35° fine adjust (360° coarse) | |
| Az | ± 35° fine adjust (360° coarse) | | ± 35° fine adjust (360° coarse) | | ± 35° fine adjust (360° coarse) | |
| EI | 5 - 90° | | 5 - 90° | | 5 - 90° | |
| Pol | ± 90° | | ± 90° | | ± 90° | |
| Feed | 2-port circular | | 2-port circular | | 2-port linear | |

| Transmit | C-Band | X-Band | Ku-Band |
|---------------------|------------------|------------------|----------------|
| | Output Frequency | 5.85 - 6.425 GHz | 7.9 - 8.4 GHz |
| Reference | 10 MHz | 10 MHz | 10 MHz |
| Reference Level | 0 +/- 5 dBm | 0 +/- 5 dBm | 0 +/- 5 dBm |
| Output Power @ P1dB | 40 W | 40 W | 25 W |
| Gain (typical) | 70 dB | 70 dB | 70 dB |
| Spectral Regrowth | -26 dBc @ P1dB | -26 dBc @ P1dB | -26 dBc @ P1dB |

| Receive | C-Band | X-Band | Ku-Band |
|-------------------------|--|--|--|
| | LNB NF | 0.5 | 0.8 |
| Reference | 10 MHz | 10 MHz | 10 MHz |
| Reference Level | -5 +/- 5 dBm | +2 +/- 5 dBm | +2 +/- 5 dBm |
| Phase Noise | -73 dBc/Hz at 1 kHz -83 dBc/Hz at 10 kHz -93 dBc/Hz at 100 kHz | -75 dBc/Hz at 1 kHz -85 dBc/Hz at 10 kHz -95 dBc/Hz at 100 kHz | -73 dBc/Hz at 1 kHz -85 dBc/Hz at 10 kHz -95 dBc/Hz at 100 kHz |
| Input VSWR | 1.5 : 1 | 1.3 : 1 | 1.5 : 1 |
| Output VSWR | 1.3 : 1 | 1.3 : 1 | 1.3 : 1 |
| Conversion Gain Typical | 65 dBm | 55 dBm | 65 dBm |
| Output P1 dB | 9 dBm | 5 dBm | 7 dBm |
| Power Req | 15 - 24 V on IF cable | 15 - 24 V on IF cable | 15 - 24 V on IF cable |
| Current Drain | 550 mA | 300 mA | 200 mA |

Satellite Acquisition Assistant

Includes Inclinometer, Compass, GPS, SA / RSSI, DVB Receiver, Interface with laptop



Outdoor Power Supply

| | |
|----------------|---------------|
| Prime Power | 115 / 230 VAC |
| | 50 / 60 Hz |
| Output Voltage | 24 V DC |
| Consumption | < 500 VA AC |

Interfacility Link Cable

| | |
|--------|---|
| Length | 10m (Standard) 30m (Optional) longer lengths available on request |
|--------|---|

Environmental

| | |
|----------------|--|
| Operating Temp | -40 to +60°C Operational (ODU) -50 to +70°C Survival (ODU) 0 - 50°C (IDU) |
| Rainfall | 50.8mm/h Operational 101.6mm/h Survival |
| Wind Speed | Up to 45 km/h Operational (no ballast or anchors) 30 Gusting to 45 km/h Operational (ballast or anchors) 96km/h Survival |
| Humidity | 0 - 100% condensing (Antenna / RF) 5 - 95% non-condensing (Indoor Equipment) |



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