

Interface Unit (IFU)

Advantages

Highly configurable to suit various field applications.

Efficient Power Supply for IBUCs in C, X, Ku, Ka and DBS bands

Option for LNB power supply.

Provides 10MHz reference for BUCs and LNBs.

Multiplexes DC power and 10MHz on the IFL Coax Cable.

Passes FSK M&C signals to/from FSK-equipped modems.

Available with TX and RX options.



Terrasat's Interface Unit (IFU) provides a cost effective solution for applications requiring separate indoor power supplies and/or 10MHz reference.

In situations where the system traffic modem does not provide a BUC power supply or 10MHz reference, the IFU can be installed between the Modem and BUC to provide DC power and /or high stability 10MHz reference via the traffic IFL coax cable. The IFU can also accommodate an external reference input.

The IFU is configurable with options to provide Transmit-only support for BUCs or to include Receive support for LNBs. In addition, the IFU can be configured for power supply only, 10MHz only or complete power and 10MHz support.

Installed in a standard 19" rack, the IFU occupies only one rack unit (1.75") of rack space and is powered from AC mains.

Simple, plug-and-play installation requires no on-site configuration.

Terrasat 4:1 Combiner and 1:4 Divider Modules available for multi-carrier operations.

Choice of various connector options.

Interface Unit (IFU)

L-Band, TX/RX

Frequency Range	950 to 2000 MHz
Insertion Loss	3.0 dB max
Flatness	1.5 dB p-p max
VSWR in/out	1.5:1 max (N/SMA) 2.0:1 max (F conn.)
Impedance	50 Ohm standard 75 Ohm optional (F conn)

10 MHz Reference Source Internal

Frequency	10 MHz
SSB Phase Noise	-120 dBc/Hz @ 10 Hz -134 dBc/Hz @ 100 Hz -144 dBc/Hz @ 1 kHz -152 dBc/Hz @ 10 kHz -155 dBc/Hz @ 100 kHz -155 dBc/Hz @ 1 MHz
Stability	+/- 10 ppb, 0 to 50°C (ref to 25°C)
Aging	+/- 0.1 ppm per year, +/- 5 ppm max.
Tuning Range	+/- 5 ppm max
Level @ Tx Rx	-3 dBm to +6 dBm
Insertion Loss	External 5.0 dB (splits to Tx/Rx)
Insertion Loss	From the Modem 3.0 dB max

FSK

Frequency Range	580-720 kHz
Insertion Loss	4.5 dB max

IBUC Power Supply supports:

C-band	5 W to 25 W
Ku-band	4 W to 16 W
X-band	5 W to 20 W
Ka-band	5 W to 10 W
DBS-band	5 W to 10 W

DC Power (internal)

BUC Supply - standard	48 ± 1.0 V@4.0 A max (AC powered unit) option 24 ± 0.5 V@6.0 A max (AC powered unit) option 51.5±1 V@4.5 A max (DC powered unit)
-----------------------	--

LNB Supply	22 ± 1.0 V @ 0.6 A
------------	--------------------

AC Input Power

Line Voltage	100-120 VAC, 200-240 VAC
Line Frequency	47-63 Hz
Current	3.6 A max (IFU fully configured)

DC Input Power (option)

Input voltage	36-75 VDC
---------------	-----------

Connectors

TX, in/out	N(f)50Ω, F(f)75Ω or SMA(f), Opt.
RX, in/out	N(f)50Ω, F(f)75Ω or SMA(f), Opt.
Reference	SMA(f), BNC(f), Optional Can be configured to accept external 10 MHz reference or with a 10 MHz output port.

Environmental

Operating temp.	0 to 50°C, (-40 to 70°C storage)
Relative Humidity	90% non-condensing, (95% storage)
Cooling	Forced Air (w/BUC power supply option)

Mechanical

Dimensions	19" (W)x8.5"(D)x1.75"(H) 483 mm x 216 mm x 45 mm
Weight	8 lbs (3.7 kg)

Specifications are subject to change without notice

IFU Data Sheet 2/29/16



315 Digital Drive, Morgan Hill, CA 95037
Tel. +1 408-782-5911 Fax +1 408-782-5912
www.terrasatinc.com