

## Frequency Block Converter C-band FCV-COL-U/D-10-D

The TEMIX Frequency Converters shape the next-generation satellite transmission with its breakthrough leading edge technology, state of the art design and unprecedented reliability.



TEMIX Frequency Converter series may combine up to 4 embedded converters in a single 1RU shelf with extensive monitor and control via front panel, serial ports EIA232/EIA485 and Ethernet. Features Best in Class RF characteristic, Flexible reference with autosensing can lock to external 5/10 MHz reference or utilize built-in high stability reference oscillator.

KEY FEATURES	
Superior RF performance:	Single, dual, triple and quad band frequency converters in a single 1RU chassis (1.75" H x 19" W x 19" D)
o Phase noise 15dB better than IESS308/309	
o In Band Spurious below -60dBc	
o Superior Gain flatness	
User Friendly front panel with menu driven display	1:N Redundant ready
5 /10MHz external reference Autosense	RF and L-Band monitoring (opt.)
Full featured M&C Interface via RS-232 serial console, packet protocol RS-485 and user friendly HTTP based GUI and SNMP:	
o 20dB Gain Control 0.5dB step (option 0.1dB step)	
o Input and output power detectors	
o Automated level control (ALC) mode (opt.)	

	UPCONVERTER	DOWNCONVERTER
RF Performance		
RF Frequency Range	5.850 - 6.725 GHz 6.425 - 7.025 GHz	3.4 - 4.2GHz 4.5 - 4.8 GHz
IF Frequency Range	950-1950 MHz	950-1750 MHz
LO Frequency	4.900 MHz	5.150 MHz
Input Return Lost	16 dB	18 dB
Output Return Lost	18 dB	16 dB
Noise Figure	13 dB Max	
Conversion	Single Conversion; non-inverting	
Output Power at 1dB CP	10dBm min	
Conversion Gain	30dB	
Gain Flatness	+/-1dB max over full band; +/-0.5dB max over any 40MHz	

### Main Features

- Phase noise 15dB better than IESS308/309

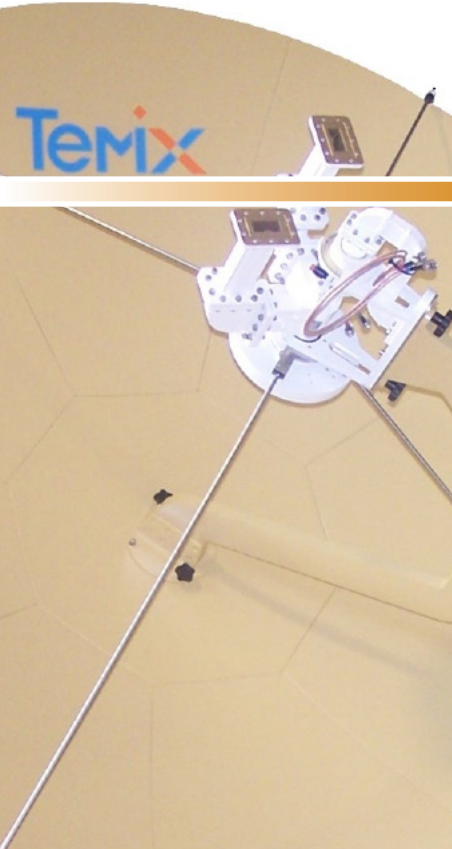
- Spurious below -60dBc

- Superior Gain flatness

\*The Information included in this data sheet may be changed without advise. rev\_01/18

#### TEMIX Communication Engineering

Corso Michelangelo Buonarroti, 61/b  
95039 Trecastagni (Catania) - ITALY  
Tel. + 39 095 8999603  
Fax. + 39 095 8880189  
[info@temix.it](mailto:info@temix.it)  
[www.temix.it](http://www.temix.it)



## Frequency Block Converter C-band FCV-COL-U/D-10-D

Gain Stability	+/-1.5dB over full temperature range
Gain Control	20dB min in 0.5dB Step (0.1dB opt.)
External Reference Frequency	10MHz
Ext. Ref. required Phase noise:	-130dBc/Hz @ 100Hz; -140dBc/Hz @ 1kHz; -150dBc/Hz @ 10kHz; -155dBc/Hz @ 100 kHz
Phase noise: @ 100Hz	-70dBc
@ 1kHz	-80dBc
@ 10kHz	-90dBc
@ 100kHz	-95dBc
@ 1MHz	-115dBc
Spurious (non signal related)	-60dBc
<b>MONITOR &amp; CONTROL FEATURES</b>	
Interfaces:	
Serial - EIA485	DB9 Connector rear panel
Serial - EIA232	RJ45 or DB9 Connector rear panel
10/100 base-T Ethernet	RJ45 Connector rear panel
Alarm and Control	DB9 Connector rear panel
Redundant protection interface	HD15 Connector rear panel
Controls:	
Gain Control	via Serial, Ethernet, Front panel
Mute Control	via Serial, Ethernet, Fr. panel, Red Int.
Local/Remote toggle	Serial(Ethernet)/Front panel toggle
Clear Alarm	via Serial, Ethernet, Front panel
Indicators:	
Lock Status	via Serial, Ethernet, Front panel
Gain Status; IF&RF Power Detect; Temper.	via Serial, Ethernet, Front panel
Summary Alarm Status	via Serial, Ethernet, Front panel, Redundancy Interface
Mute Status	via Serial, Ethernet, Front panel, Redundancy Interface
POWER SUPPLY	90 to 265VAC 50/60Hz PFC
<b>MECHANICAL</b>	
Width x Height x Depth	19" Rack x 1RU x 19"
Color	Metallic
Cooling	Forced air
<b>IF/RF CONNECTORS</b>	
IF	BNC (other options available)
RF	N-type (other options available)
10MHz Ref In/Out	BNC (other options available)
<b>ENVIRONMENTAL</b>	
Operating temperature	0 to 60 deg.C
Storage Temperature	-40 to +85 deg.C
Humidity	0 to 95% (non-condensing)

### Main Features

#### Interfaces:

- Serial - EIA485
- Serial - EIA232
- 10/100 base-T Ethernet
- Alarm and Control
- Redundant protection interface

\*The Information included in this data sheet may be changed without advise. rev\_01/18

#### TEMIX Communication Engineering

Corso Michelangelo Buonarroti, 61/b  
95039 Trecastagni (Catania) - ITALY  
Tel. + 39 095 8999603  
Fax. + 39 095 8880189  
[info@temix.it](mailto:info@temix.it)  
[www.temix.it](http://www.temix.it)

**Temix**  
communications