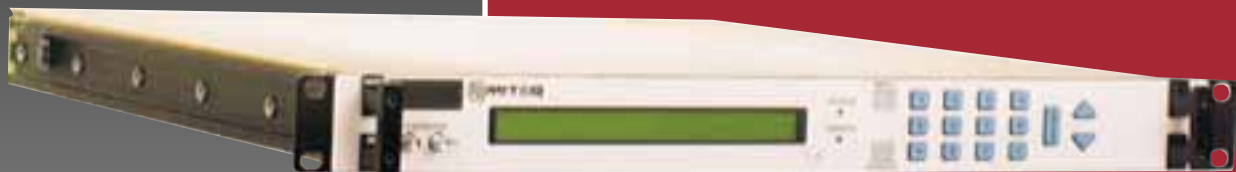




# SWITCHABLE FREQUENCY BAND TEST TRANSLATORS

For Satellite  
Communications



Input (GHz)	Output (GHz)	LO (GHz)	Band	Model Number
<b>SPECIFICATIONS</b>				
13.75–14.5	10.95–11.7	2.8	1	DN-891
13.75–14.5	10.7–11.45	3.05	2	
13.75–14.5	1.45–12.2	2.3	3	
13.75–14.5	11.455–12.205	2.295	4	
13.75–14.5	11.2–11.95	2.55	5	
13.75–14.5	12–12.75	1.75	6	
13.75–14.25	12.255–12.755	1.495	7	
13.75–14.25	12.25–12.75	1.5	8	
14–14.5	10.7–11.2	3.3	9	
13.75–14.5	10.95–11.7	2.8	1	DN-892
13.75–14.5	10.7–11.45	3.05	2	
13.75–14.5	11.45–12.2	2.3	3	
13.75–14.5	11.455–12.205	2.295	4	
13.75–14.5	11.2–11.95	2.55	5	
13.75–14.5	12–12.75	1.75	6	
13.75–14.25	12.255–12.755	1.495	7	
13.75–14.25	12.25–12.75	1.5	8	
14–14.5	10.7–11.2	3.3	9	
12.75–13.25	10.7–11.2	2.05	10	
5.85–6.425	3.625–4.2	2.225	1	DN-893
5.95–6.525	3.625–4.2	2.325	2	
6.425–6.725	3.4–3.7	3.025	3	
7.975–8.4	7.25–7.675	0.725	1	DN-894
7.9–7.95	7.7–7.75	0.2	2	
7.9–8.4	7.25–7.75	0.65	3	

This series of test translators is designed to translate the C-, X- and Ku-band satellite communication frequency transmit bands to their respective receive frequency bands.

## FEATURES

- Minimum amplitude and delay distortion
- High frequency stability
- Low intermodulation distortion
- Low phase noise contribution
- 10/100Base-T Ethernet and RS485/422
- 64 programmable memory locations
- 30 dB level control in 0.2 dB steps
- Automatic 5/10 MHz internal/external reference selection
- Summary Alarm
- CE Mark

## OPTIONS

- Higher frequency stability
- RS232 remote control



# SPECIFICATIONS

## FUNCTIONAL

Conversion loss .....	18 dB maximum, 15 dB typical
Amplitude response .....	±0.3 dB over any 40 MHz, ±1 dB over each output frequency band
Input/output return loss .....	20 dB minimum
Frequency stability .....	±2 x 10 <sup>-8</sup> , 0 to 50°C (higher stability options available), ±5 x 10 <sup>-9</sup> /day typical (fixed temperature after 24 hour on time)
Automatic reference configuration .....	External 5 or 10 MHz at +4 ±3 dBm. If external reference is below +1 dBm nominal, the translator will automatically lock to the internal reference.
Level control .....	30 dB in 0.2 dB steps
Intermodulation distortion (third order) .....	With two inband signals at -13 dBm output, third order intermodulation products are less than 50 dBc minimum
Input/output isolation .....	60 dB minimum
Remote control .....	10/100Base-T Ethernet interface providing: HTTP-based web server SNMP 1.0 configuration Alarm reporting via SNMP trap Telnet access Password protection and selectable RS485/422

## PRIMARY POWER REQUIREMENTS

Voltage .....	90–250 VAC
Frequency .....	47–63 Hz
Consumption .....	25 W typical

## PHYSICAL

Weight .....	20 pounds nominal
Connectors	
RF (rear panel) .....	SMA female
LO monitors (front panel) .....	SMA female
Alarm .....	DE-9P
External reference input .....	BNC female
Remote interface .....	DE-9S for RS485, RS422 and RS232, RJ-45 female for Ethernet
Primary power input .....	IEC-320

## ENVIRONMENTAL

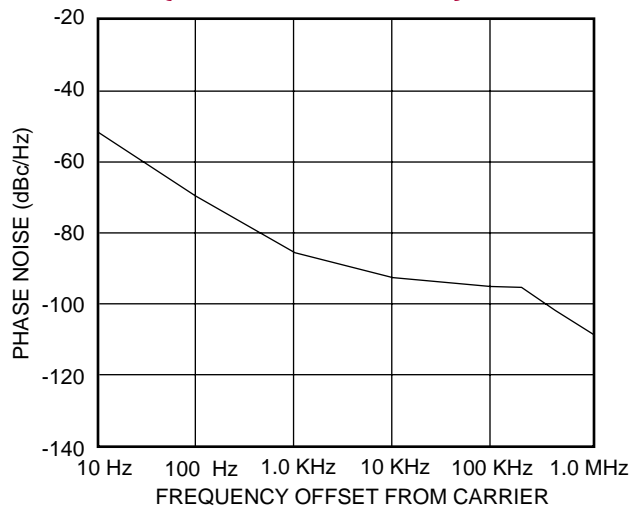
Operating	
Ambient temperature .....	0 to 60°C
Relative humidity .....	Up to 95% at 30°C
Atmospheric pressure .....	Up to 10,000 feet
Nonoperating	
Temperature .....	-50 to +70°C
Relative humidity .....	Up to 95% at 40°C
Atmospheric pressure .....	Up to 40,000 feet
Shock and vibration .....	Normal handling by commercial carriers

## OPTIONS

1. 30 dB additional level control. Independent control of input and output attenuators.
2. Input filter.
4. External local oscillator input.  
Addition of SPDT switch for internal/external local oscillator selection.  
Rear panel SMA connector and selection switch. Local oscillator input at  $13 \pm 1$  dBm.
10. Higher frequency stability reference.
  - B.  $\pm 5 \times 10^{-9}$ , 0 to 50°C,  
 $1 \times 10^{-9}$ /day typical (fixed temperature after 24 hour on time).
  - C.  $\pm 2 \times 10^{-9}$ , 0 to 50°C,  
 $1 \times 10^{-9}$ /day typical (fixed temperature after 24 hour on time).
17. Remote control.
  - C. RS232 remote interface.

Note: For literature describing local control (front panel) and remote control (bus control), refer to MITEQ's Technical Note 25T055. Missing option numbers are not applicable for this product.

### MAXIMUM PHASE NOISE CHARACTERISTICS (1.0 Hz BANDWIDTH)





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