

Ku LNB 10.70-12.75 GHz 1 Band Wideband

Key features



DVB-S2X



- Full Ku-Band 10.70-12.75 GHz coverage with 1 LO and 1 output
- Standard Ultra Low Phase Noise to meet all profiles of DVB-S2X
- Choose between Internal Ref. or External 10 MHz ref. models
- Wide operating temperature range
- High P1dB and IP3
- Available as TWIN for H/V reception
- Lower gain versions for larger antennas

Description

The Wideband output LNB supports reception of full Ku-Band with 1 LO and 1 Extended IF Output 950-3000 MHz, 950-2750 MHz or 290 - 2340 MHz (ASTRA Wideband specification).

The Ultra Low Phase Noise “ULPN” is recommended* for:

- DVB-S2: - Narrowband 8PSK 8/9 and 9/10 FEC
- 16 APSK or higher modulation type (any bandwidth)
- All applications with “Pilot Off”

DVB-S2X: All “MODCODS” and symbol rates

NS3/NS4: All “MODCODS” and symbol rates

* Please note that these are general recommendations and that all other system components also will influence system performance.

LNB connector standard



Connector A (standard)
Type: N-female, (option F-female or SMA-female)
Functions: L-Band out, DC in, External 10 MHz in

LNB connector optional



Connector B (optional)
Type: SMA-female
Functions: External DC or Ext. 10 MHz ref. input.

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Technical specifications

	MODEL/LO	9.75 GHz Wideband	10.00 GHz Wideband	10.41 GHz Wideband
INPUT	Freq. range (GHz)	10.70 to 12.75 GHz	10.95 to 12.75 GHz	10.70 to 12.75 GHz
	IF (MHz)	950 - 3000 MHz	950 - 2750 MHz	290 - 2340 MHz
	Input waveguide	WR75 / R120. PBR120 flange		
	Input max power	0 dBm instantaneous (not continuous)		
	DC Input	+15 to +24 V nom. supplied through output connector		
	Current drain	160 mA @ +20 V 180 mA @ +18 V 200 mA @ +16 V		
	Input VSWR	2.3:1 typ., with optional Isolator 1.25:1 max.		
INTERNAL	MODELS with internal LO ref.	± 10 kHz (-20 to +70°C), ± 15 kHz (-40 to +80°C)		
	MODELS with External 10 MHz ref.	Sinus wave, input level -10 dBm to +10 dBm through output connector. With no ext. 10 MHz ref. present LO shifts -20 ppm.		
	LO Leakage	-60 dBm max. @ waveguide input, -40 dBm max. @ IF output		
	Gain	60 dB typ. (55dB min.)		
	Gain variation over 24h	±0.1 dB @ 23°C		
	Flatness	± 0.4 dB max. within 30 MHz, ± 3 dB max. over full band		
	Noise figure	0.8 dB / 59 K typ.		
	Phase Noise	10 Hz -35dBc/Hz • 100 Hz -65dBc/Hz • 1 kHz -82dBc/Hz • 10 kHz -94dBc/Hz • 100kHz -98dBc/Hz • 1MHz -120dBc/Hz (typ.)		
	Image Rejection	40 dB min.		
	Out of band rejection	20 dB min.		
OUTPUT	Group delay	± 1ns max.		
	Output P1dB	+15 dBm min.		
	Output IP3	+25 dBm min.		
	Output VSWR	2.1:1 typ.		
GENERAL	Output Connector	N-female 50Ω or SMA-female 50Ω (F-female only with model 10.41)		
	Dimensions	128 x 57 x 46 mm (N-connector)		
	Weight	329 g (F & SMA-connector), 345 g (N-connector)		
	Temperature range	Storage and operating: -40 to +80°C, -40 to +176°F		
	MTBF	MTBF as per MIL-HDBK-217F Notice 2: Environmental Condition GF (Ground Fixed): >489000 hours, Environmental Condition AIC (Airborne, Inhabited, Cargo): >245000 hours, Quality level: Commercial, Temp used for MTBF calculation: +35 C Ambient		
OPTIONS	Miscellaneous	Enclosed conductive O-ring, hex head mounting screws (M4 x 10) 4 pcs		
		- Separate SMA connector for DC input or Ext. 10 MHz reference - Custom LO, lower gain and variation - Low Loss Isolator - TWIN LNB with OMT + bend and protecting cover		

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Technical Drawing

