



HE 2127

Transmitter - S-Band - 2W



IN-SNEC

This 2W S-band transmitter is dedicated to send telemetry or video data from telemetering systems or video cameras to ground stations.

Many modulations are available to meet most system requirement and to offer a complete solution to your data link needs.

Its compactness, its lightweight and its robustness make it ideal for integrations as well in fixed systems as in vehicles with little available space and harsh environment like target drone, unmanned vehicle, light aircraft, terrestrial vehicles,...

Applications

- Telemetry from aircraft, ground vehicles or fixed systems
- Generation of an analog or digital data modulated S band carrier dedicated to :
 - ◆ Analog TV signal transmission (video version)
 - ◆ Medium or high rate digital data transmission (PCM version)
 - ◆ Low rate data transmission (FSK version)

Main features & benefits

- Low cost, low power consumption, low weight
- High ruggedness, RF shield
- Remote controlled via a PC
- PCM/FSK/FM modulations available
- Configurable on request

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Electrical specifications

◆ Bandwidth	2180 to 2690 MHz
◆ Frequency step	25 kHz
◆ Frequency stability	$\pm 2 \times 10^{-5}$
◆ Programmable output power	$\geq 2W / 0.5W$
◆ Modulation	
● FSK version	PCM/FSK/FM
● PCM version	PCM/FM
● Video version	FM
◆ Nominal modulation excursion (factory set according to customer request)	$\pm 250\text{kHz}$ to $\pm 2.5\text{MHz}$
◆ Input impedance	
● FSK version	RS232 compatible
● PCM version	$> 10 \text{ k}\Omega$
● Video version	75Ω
◆ Output impedance	50Ω
◆ VSWR	< 1.5
◆ Spurious (non harmonic & non related to switching power supply) :	$< -50 \text{ dBc}$
◆ Spurious related to switching power supply ($\Delta f = 100 \text{ kHz} + \text{harmonics}$)	$< -40 \text{ dBc}$
◆ Phase noise @100kHz	$\leq -90 \text{ dBc/Hz}$ offset
◆ PLL acquisition time from switch on	$\leq 5 \text{ seconds}$
◆ Deviation sense :	negative
◆ Incidental frequency modulation over environment :	$< 20 \text{ kHz eff.}$

Mechanical characteristics

◆ Dimensions	3.14"x 3.14"x 1.57" (80 x 80 x 40mm)
* Other dimension available on specific requirement	
◆ Weight	0.485 lb (220 g)
◆ Vibrations(random)	6g from 20 to 2000Hz

Interfaces

◆ RF output	SMA-female
◆ RS 232 bus	Lemo EHG 00303 CLL

Environmental conditions

Operating conditions

◆ Temperature range	-20°C to $+80^{\circ}\text{C}$
◆ Relative humidity	35% to 95% non condensing

Non operating conditions

◆ Temperature range	-40°C to $+80^{\circ}\text{C}$
◆ Relative humidity	35% to 95% non condensing

Primary power requirement

◆ Voltage	10 VDC to 32 VDC
◆ Power consumption	@ $P_s = 0.5W$ $< 14 \text{ W}$ @ $P_s = 2W$ $< 20 \text{ W}$
◆ Protected against power supply polarity inversions	

Ordering information

■ Model references

FSK version	508994-1
PCM version	508994-2
Video version	508994-3



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