



2761-70 FSK Modulator, 70 MHz

The 2761-70 FSK Modulator accepts user supplied data and produces frequency shift keying (FSK) modulation initially to an 8 MHz subcarrier and is then upconverted to a modulated 70 MHz signal. Front panel LEDs provide indication of data alarm (red), carrier mute (yellow), data activity (green), and power (green). The output is a -10 dBm (factory set), 70 MHz signal into 75 ohms. The 70 MHz carrier signal can be turned on or off manually via a DPDT front panel switch, and the level is adjustable via a front panel potentiometer. Connectors are BNC female for 70 MHz output (and optional TTL CLOCK input/output and DATA input), and DB9 for the data alarm, RS-422 data input, and RS-422 clock input/output. The unit is powered by an external +48VDC power supply, and housed in a 1 3/4" X 19" X 16" rack mount chassis.



Front Panel

EQUIPMENT SPECIFICATIONS*

Input Characteristics

Data Interface	RS-422, 1kΩ pull-up to +5VDC
Logic "1"	> 3V
Logic "0"	< 1V

Output Characteristics

Impedance/Return Loss	75Ω /14 dB
Frequency	70 MHz
Output Level	-10 dBm

Data Characteristics

Bit Rate	198.4 kb/s
Synchronization	None (Direct FSK with logic 1 = +74.4 kHz deviation and logic 0 = -74.4 kHz deviation)
Format	Serial
Interface	RS-422
Scrambling	None
Forward Error Correction	None

Modulation Characteristics

Modulation	FSK
Deviation	±74.4 kHz dev.
Spacing	300 kHz
Bandwidth	200 kHz

Controls, Indicators

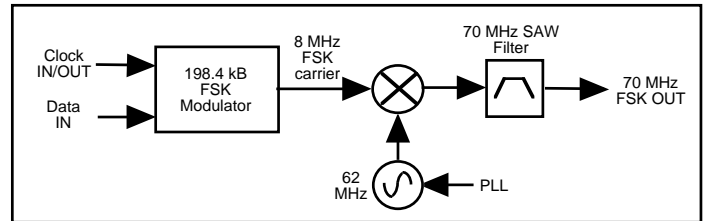
Carrier Level	10 turn potentiometer adjusts output level (factory set for -10 dBm)
Carrier On/Off Switch	DPDT switch turns 70 MHz carrier on or off
Mute	Yellow LED lights when 70 MHz carrier is turned off by front panel switch
Power	Green LED lights when +48VDC is present
Data Activity	Green LED lights on input data transitions
Alarm	Red LED lights when internal PLL is out of lock

Other

70 MHz Connector	BNC (female)
Alarm/Data Connector	DB9 (female), Open collector
Size	19-inch, 1RU standard chassis, 1.75" high X 16.0" deep
Power	+48VDC ± 20%, 15 Watts max from external source

Options

TTL Interface	
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Block Diagram

*10°C to 40°C; Specifications subject to change without notice