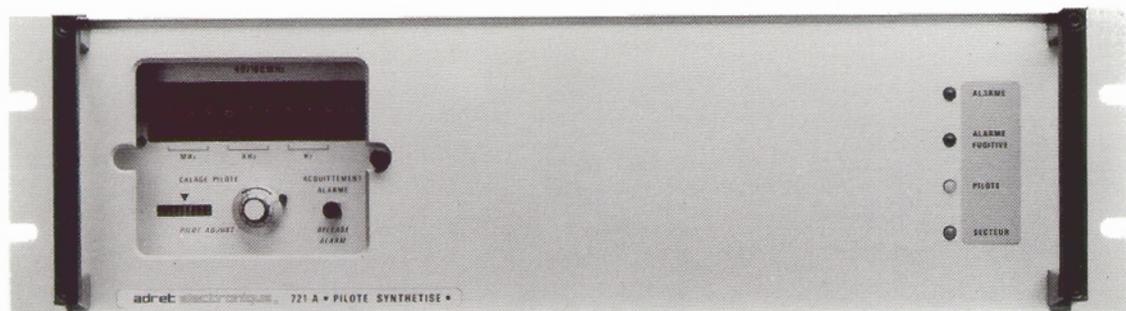


TV SYNTHESIZED DRIVER

721C



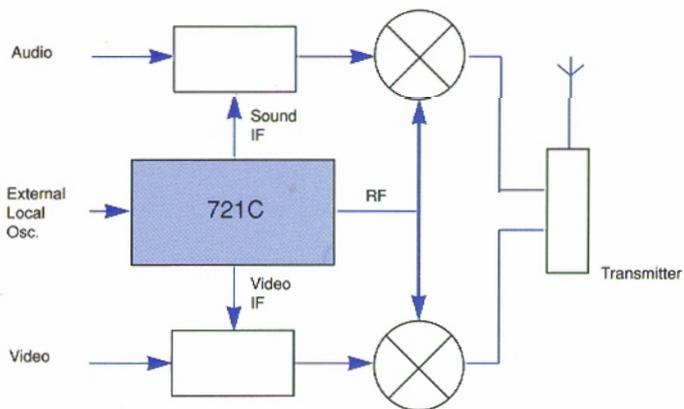
- Adjustable output levels from +11 to +17 dBm
- Frequency range 40 to 160 MHz
- Spectral purity: harmonics -20 dBc
- Resolution 0.1 Hz

The 721C TV Synthesized Driver operates all transmitters in Bands I, III, IV and V. It features two major benefits:

- High performance: offering stability, network synchronization, line and frame offsets.

- Low cost of ownership: offering ease of maintenance and operation, remote control, standardization and interchangeability.

Using a technique called "Accuracy Offset", the 721C accurate carrier offset avoids interference problems. The oscillator locking performs network synchronization and carrier frame offset. This locking may be achieved with a 1, 5 or 10 MHz external time base.



Typical application of 721C in TV transmitter

721C

GENERAL DESCRIPTION	721C is a synthesized driver with a frequency range of 40 to 160 MHz.
FREQUENCY	
Range	40 to 160 MHz.
Resolution	0.1 Hz.
Selection and indication	Thumb wheel adjustment.
Accuracy	Equal to frequency standard. See FREQUENCY STANDARD.
RF OUTPUT	
Level	+11 to +17 dBm.
Selection	By potentiometer on rear panel.
Indication	By external power meter.
Output level accuracy	± 1 dB at 25°C.
Output impedance	50 Ω
Output protection	The output is protected against short-circuits. Single front panel LED indicates overload. On removal of short-circuit, performance is restored.
SPURIOUS SIGNALS	
Harmonically related signals	Better than -20 dBc at frequencies of 5 MHz and from 30 to 160 MHz.
Non-harmonically related signals	Better than -60 dBc for offset frequencies from 10 Hz to 20 kHz.
Single sideband phase noise	Better than -123 dBc/Hz at 100kHz offset.
Residual AM	Better than -75 dB RMS for transposition and video IFs measured in a 10 Hz to 6 MHz bandwidth and better than -70 dB for audio IF measured in a 10 Hz to 30 kHz non-weighted bandwidth. Better than -55 dB RMS for transposition frequency, F3, measured in a 10 Hz to 6 MHz bandwidth and better than -65 dB RMS measured in a 10 Hz to 100 kHz. Better than -60 dB RMS for video frequency, F2, measured in a 10 Hz to 6 MHz bandwidth and better than -65 dB RMS measured in a 10 Hz to 100 kHz bandwidth.
Output protection	Output protected against reverse power of up to 30 W. On failure F1, F2 and F3 are automatically switched off. The alarm may be reset by the front panel push button switch.
IF frequencies	
Frequencies	30 to 40 MHz.
Level adjustment	By potentiometer on rear panel.
Resolution	100 kHz.
Accuracy	Equal to frequency standard. See FREQUENCY STANDARD.
Harmonic distortion	Better than -20 dBc.
FREQUENCY STANDARD	
Frequency standard input/output	A rear panel BNC socket provides an output from the internal frequency standard at 10 MHz. A second rear-panel BNC socket allows external standard input.

INTERNAL FREQUENCY STANDARD	
Frequency	10 MHz.
Temperature	2x10 ⁻⁸ from +10°C to +50°C for a temperature gradient of 10°C per hour.
Aging rate	2x10 ⁻⁸ /day after 72 hours continuous operation. 3x10 ⁻⁸ /day after 3 months continuous operation. 1x10 ⁻⁷ /month after 3 months operation.
Harmonic distortion	Better than -20 dBc.
Internal standard output	Frequency: 5 MHz Level: 7 dBm ± 1 dB. Source impedance: 50 Ω
EXTERNAL FREQUENCY STANDARD	
External standard input	Accepts either 1, 5 or 10 MHz within 5x10 ⁻⁷ .
Warm-up time	6 minutes from switch-on.
Settling time	Less than 1s.
SAFETY	Complies with IEC 348.
RATED RANGE OF USE (Over which full specification is met)	
Temperature	+10 to +50°C.
CONDITIONS OF STORAGE AND TRANSPORT	
Temperature	-20 to +70°C.
Ambient magnetic induction	5x10 ⁻⁵ Tesla RMS.
Humidity	97% non-condensing.
Altitude	15 000 m.
POWER REQUIREMENTS	
AC supply	220 V ± 15%. 48 to 62 Hz. 50 VA maximum.
External battery	Automatic back-up on mains failure. DC voltage: 11 to 13 V. 150 mA maximum for temperatures greater than 20°C. Power-on current: 500 mA.
DIMENSIONS AND WEIGHT	
	Height Width Depth Weight
	132.5 mm 419.1 mm 340 mm 11 kg
	5.2 in 16.5 in 13.4 in 24.3 lb

VERSIONS AND ACCESSORIES

When ordering please quote eight digit code numbers

Ordering numbers	721 C	Versions	40 to 160 MHz TV Synthesized Driver.
		Supplied Accessories	AC Supply Lead. Operating Manual.
	43126-012S	Optional Accessories	RF Connecting Cable 50 Ω 1.5 m, BNC.