

ADV24 is a radio modem using DSSS-RAKE spread spectrum technique to provide wireless data and video transmission with low bit error rate in hostile radio environments, for industrial and military telemetry applications up to 4.4 Mbps.

ADV24 is available for use in ISM S and C bands, and can be customized for other specific frequencies. Its compact housing is resistant to difficult environments, and is adapted to airborne and terrestrial applications. Highly configurable, it can be used in a wide range of operational conditions.



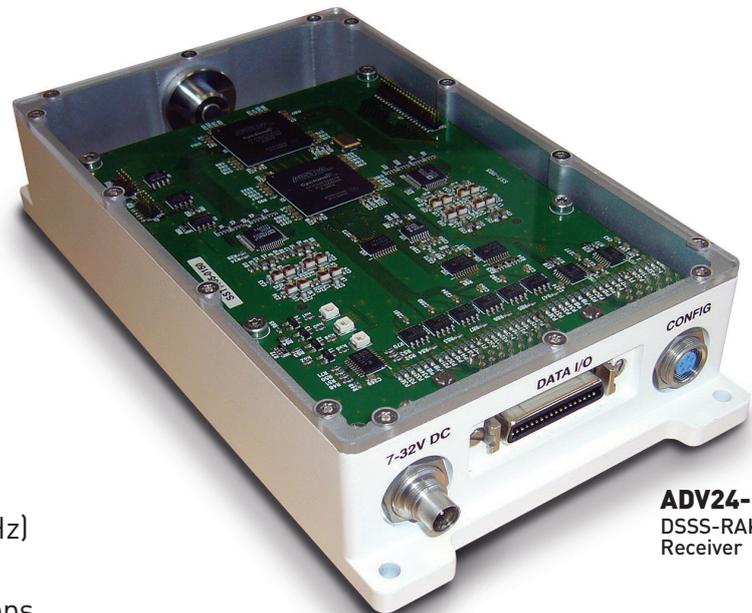
ADV24-T
DSSS Transmitter

APPLICATIONS

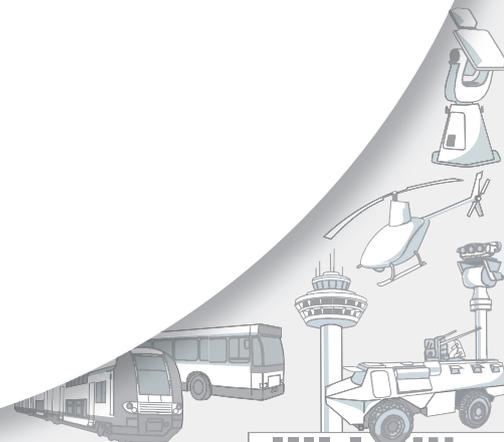
- Telemetry (data, audio, video) and remote control for datalink
- High level immunity against jamming interference and unauthorised parties,
- Fixed and mobile applications up to 230 km/h in specified conditions
- Point to point and point to multipoint applications.

FEATURES

- Digital Video and data radio link
- 3 available frequency bands (2.2, 2.4, 5.9 GHz) and other frequencies on request,
- Data rate adjustable from 10 kbps to 4.4 Mbps,
- Configurable modulation parameters, to maximise robustness at a given data rate,
- 4 data ports, each of them being independently configurable,
- Dedicated port for interfacing with a data recorder or player,
- Adjustable output RF power over a 28 dB range,
- Complete Configuration through a user friendly MMI using a PC software,
- Field upgradable firmware,



ADV24-R
DSSS-RAKE Receiver



Flexible Data Interfaces

- Four highly configurable user data serial ports.
- Two Synchronous RS422 ports up to 4 Mbps (One RS422 Asynchronous port is possible).
- Two RS232 ports support connection to any asynchronous user device (up to 115 Kbps).
- A fifth recorder port is possibly available.
- Data activation mode require only receive and transmit data lines for full communications with user device.

High Technical specifications

RF Signals

Available Frequencies	2200-2260 MHz 2420-2500 MHz C band frequencies upon request
Programmable Freq	Step 1 or 5 Mhz
Modulation	DBPSK or DQPSK
Tx Output Power	- 10 to + 20 dBm (step 2 dB)
RX Sensitivity (BER 10 ⁻⁶)	eg 2230 MHz : - 96 dBm @ 700 Kbps eg 2450 MHz : - 88 dBm @ 4 Mbps
RX dynamic Range	- 100 to - 25 dBm (RSSI monitoring)

DSSS Spread Spectrum

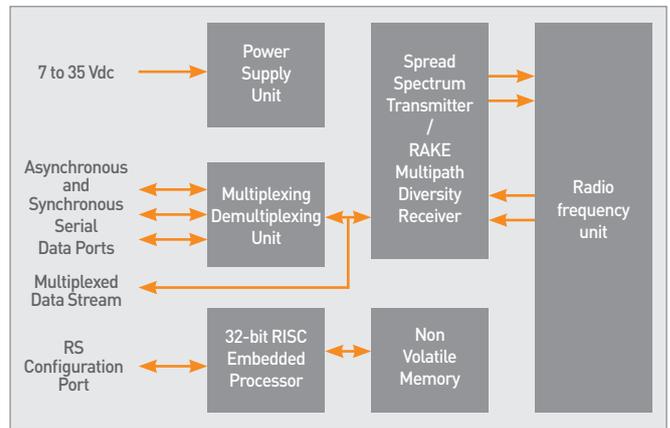
PN Code	DSSS - RAKE Barker, M-sequence
Code Length	11 to 255 chips
Code Rate	25 Mchips/s

Data Interfaces

Interface Total Data Rate	from 10 Kbps to 4 Mbps
DATA Interface 1	RS232 (up to 115 kbps)
DATA Interface 2	RS232 (up to 115 kbps)
DATA Interface 3	RS422 (up to 4 Mbps)
DATA Interface 4	RS422 (up to 4 Mbps)
Multiplexing	Up to 4 Interfaces simultaneous

PC Software Configuration & Monitoring

- Windows based configuration software provides quick setup and testing of ADV24 radio modems.
- Monitoring the radio link quality by selecting channels, output power and controlling the RSSI level.
- Configuration of data interfaces, set up of data rate between 4 available ports.
- User selectable scrambling codes for private communications.
 - Maintenance information's (TSSI, Supply Voltage, Temperature, Radio Status).
 - ADV24 flash memory program storage allows easy in-field set up and firmware upgrades.



General

Operating Temperature	- 40 to + 70°C
Power Supply Voltage	7 to 35 V DC
Consumption	250 mA @ 28 V
Dimension	180 x 100 x 35 mm
Weight	200 g (OEM) - 800 g (case)
Data Interfaces connector	MDR 36 Pins
RF Connector	Type N
Serial Link Connector	Tyco Triad 01 - 5 pins

PC User Interfaces

User Interfaces, available on PC-Software with serial link	Data Interfaces Rate Configuration
	Channel Selection
	Output Power Selection
	RSSI Level (in dBm)
	TSSI Level Control
	Temperature
	Phase Lock Loop Status

