



## DVB-S2/-S Demodulators/Routers:

**CCM, VCM, ACM**

**QPSK, 8PSK, 16APSK, 32APSK**

**Up to 30 Msym/s**

**GbE Interface**

**Tracking System included (efR-1010)**

**Customised versions on request**

**Contact us at [info@efcoms.com](mailto:info@efcoms.com)**

The efR Series of DVB-S/DVB-S2 Demodulators/Routers are designed and built to support the ongoing requirements for bandwidth savings – using Open Standard advanced Forward Error Correction and Advanced Coding and Modulation (ACM) – at affordable prices, thus enabling a broad roll-out.

Designed from a user's perspective, the devices incorporate features to make both lives of the provider and endcustomer easier:

- the functionality employed is compliant with ETSI EN 302 307 V1.1.1 and ETSI TS 102 606 V1.1.1
- internal autark monitoring and logging of important parameters, such as SNR, bandwidth usage etc.
- DHCP Server
- DNS forwarding/cache (highly reducing satellite induced RTT time effects for web browsing)
- VPN client for easy connection setup
- remote control and monitoring
- additional customised features can be implemented

## Versions:

efR-500: Desktop housing, up to 20k pps / 20 Mbps

efR-1000: 19" housing, up to 30k pps / 90Mbps

efR-1010: same as efR-1000, with internal tracking controller

Customised versions on request - Contact us at [info@efcoms.com](mailto:info@efcoms.com)

## **Product Data:**

### **Demodulation:**

Symbol rate: 66kSym/s to 30MSym/s in steps of 1 kSym/s

#### DVB-S:

QPSK  
Viterbi rates 1/2, 2/3, 3/4, 5/6, 6/7, 7/8

#### DVB-S2:

Modulation CCM, VCM, ACM  
QPSK, 8PSK, 16APSK, 32APSK  
LDPC rates: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 (not all supported on all Modcods)  
Short and Long FECFrames  
Pilots On and Off  
PL Scrambling Off, Custom On, GoldCode  
Roll-Off: 0,35 0,25 0,20

### **Decapsulation:**

MPE: PID and MAC Filtering  
GSE: According to ETSI TS 102 606 V1.1.1 (6-, 3-, 0 -Byte MAC and ISI Filtering), IP Filtering  
GULE: ISI and MAC Filtering, CRC support

### **RF Input:**

Input Frequency: 950 – 2150 MHz  
F-Connector, 75Ohm (2 selectable RF Inputs, out of which only one can operate at a time)  
RF Input Level: -69dBm to -20dBm

### **LNB Power:**

14/18V, 22kHz Signals (DiSEqC (t) on request)  
Max. 230 mA current

### **Tracking system (efR-1010 only):**

Dual Axis tracking (currently limited to one axis only) through operation of DC Relais  
Fully supporting efT Series of tracking mounts

DC Input (max. 36V, max. 5A)  
Two output pairs of connectors with power off, reverse or forward DC.  
Antenna position tracking by means of actuator reed contacts (feeding back current relative position)

Tracking Modes (currently recommended for inclined operation only)  
- Blind Track  
- Adaptive Track (future release)  
- External Track (future release)

### **Mechanical Data:**

	efR-500	efR-1000	efR-1010
Body Size (W x L x H in mm)	195 x 240 x 65	438 x 340 x 44	438 x 340 x 44
Front Plate size (W x H in mm)		483 x 44	483 x 44

### **Environmental Data:**

Ambient temperature: 0°C - 35°C  
Humidity: 10%-90%, non-condensing

### **Power Requirements:**

12V DC, supplied by external Power Supply requiring 110-240VAC 50Hz  
Power Consumption: 20 W (typ.w/o LNB supply)