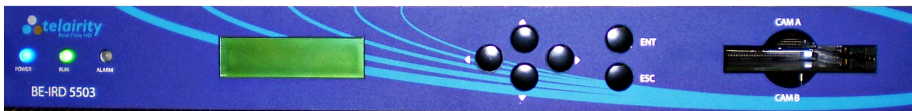


## BE-IRD-5503 Integrated Receiver/Decoder

The BE-IRD-5503 is a versatile third generation 5500-class integrated receiver and decoder for broadcasters, cable operators, and telecoms with Genlock capability for accurate frame and color synchronization. A highly flexible professional choice, the 5503 can decode all video formats (HD or SD, MPEG-2 or MPEG-4), making it the perfect solution for customers migrating from MPEG-2 SD to MPEG-4 HD. A wide range of input/output options, together with a built-in Multiplexer/Filter, allows users to create highly customized transport streams. Two PCMCIA Common Interface card slots support a variety of Conditional Access systems, including Conax, Cryptoworks, Irdeto, Mediaguard, NDS, SECA, Viacross, and others. LAN control and monitoring can be done using the unit's built-in Monitor Center facility, or through standard SNMP-based network management systems.



### Features and Options

#### Tuner / Input Specifications (select one)

- **DVB-S/S2 QPSK & 8PSK Demodulation**
  - complies with DVB-S, MPEG-2, ETSI 300421 standards
  - Input frequency range: 950~2150MHz
  - Input Level: -25dBm~65dBm
  - Input Impedance: 75Ω, F type female connector
  - Symbol Rate: 2~45Mb/s (SCPC or MCPC)
  - Rolling Off Factor: 0.35 for QPSK; 0.35, 0.25, 0.2 for DVB-S2
  - Punctured Rates: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 8/10 for DVB-S QPSK  
3/5, 2/3, 3/4, 5/6, 8/9, 9/10 for DVB-S2 8PSK
  - LNB Level: 0, 13V, 18V adjustable
  - Reed Solomon Error Correction: 204, 188, T = 8 & I = 12
- **DVB-C QAM Demodulation** complies with DVB-C & MPEG-2 standards
  - Tuner**
    - Input Symbol Rate Range: 1~7Mbps (PAL), 1~6Mbps (NTSC)
    - Demodulation: 16/32/64/128/256QAM
    - Bandwidth: 6, 7, 8MHz
  - Input**
    - Frequency Range: 48~860MHz
    - Digital Signal Input Level: -15~15dBmV
    - Input Impedance: 75Ω, IEC Female (7/8MHz) or F Female (6MHz) Input
- **DVB-T/T2 COFDM Demodulation** complies with DVB-T & MPEG-2 standards
  - Tuner**
    - Input Symbol Rate Range: 4.98~31.67Mbps (8MHz bandwidth)
    - Demodulation: QPSK, 16 QAM, 64 QAM
    - Bandwidth: 6, 7, 8MHz
    - FFT Mode: 2K/8K
    - Guard Interval: 1/4, 1/8, 1/16, 1/32, off
    - FEC Code Rate: 1/2, 2/3, 3/4, 5/6, 7/8

## BE-IRD-5503 Professional IRD

### Applications

The Telairity BE-IRD-5503 offers professional receive, decode, decrypt, and descramble capabilities for all broadcast applications, including IP, Satellite, and Cable head-end facilities. Supports

- IPTV
- All types of head-end facilities
- HD/SD ENG/SNG Receiving
- HD/SD Program Distribution

### Benefits

Part of the Telairity family of professional video compression products for trouble-free integration with Telairity encoders.

Decodes all 4:2:0 formats:

HD & SD, MPEG-2 & H.264/AVC

HD to SD down-conversion;

Convert DVB to/from IP;

Convert other TS formats to DS3

QPSK / 8PSK, QAM, or COFDM

input interface with error correction;

source loop-out over 75Ω cable

Option to replace DVB interface with

DS3 (G.703, E1/E3) interface

IP interface standard on all models;

configurable for input or output

Genlock reference input

2 CI slots to accommodate a variety of CA systems

Supports BISS/BISS-E descrambling

IP, ASI, SDI, HDMI, Component, and Composite video outputs

Decodes up to 6 audios with analog, digital, and embedded output; 2 AC3 pass-through audios supported

Built-in multiplexer/filter

Teletext, VBI, EBU and DVB subtitles; WSS and Closed Caption

Includes alarm relay; auto-saves settings on power loss

## Ordering Information

Part Number: **BE-IRD-5503**

## Contents

- IRD 5000-series Decoding Platform
- CD with management software
- User Manual (hardcopy)
- Cables
  - Power cord (IEC to USA plug)
  - RCA A/V cable
  - BNC cable
  - RS-232 to XLR

## Requirements

- PC for control system
- Encoded source
- Display to view decoded images

## System Control

- LCD panel menus
- Network control software (on CD)
- SNMP-based network management systems

## About Telairity

Telairity, based in Santa Clara, California designs, manufactures and markets H.264/AVC and other advanced encoding and transcoding solutions for broadcast and professional video applications. Telairity's breakthrough video architecture (Telairity-1™) is the foundation for all its real time encoding products, which combine outstanding video quality with state-of-the-art, video compression based on the AVC (H.264 / MPEG-4.10) standard to achieve the lowest possible bitrates.

## Input

- Frequency Range: 470-862MHz (UHF), 174-230MHz (VHF)
- Digital Signal Input Level: -20~-70dBmV
- Input Impedance: 75Ω, IEC Female (7/8MHz) or F Female (6MHz) Input

## • DS3 Input & Loop-through Output (compatible with Barco, Huawei, etc. protocols)

- Impedance: 75Ω
- Connector: BNC
- Maximum Input Code Rate: 44.736Mbps
- Format: Unframed Framing according to G.804 / G.752 (DS3) / G.703 E1/E3

## TS over IP Output

- 10/100base-T: RJ45
- Maximum Output Code Rate: 70Mbps
- UDP/RTP: Multicast or Unicast
- Multicast Control Protocol: IGMPV2

## Input Connectors

- 1 IP input – RJ45 connector (Gigabit Ethernet, shared with output)
- 1 Ethernet management port – RJ45 connector
- 1 ASI – BNC connectors
- 1 RF Tuner
- 1 Genlock reference input (B.B./Tri-s Frame Sync)

## Output Connectors

- 1 IP output – RJ45 connector (Gigabit Ethernet, shared with input)
- 1 RS-232 printing port
- 2 ASI -- BNC connectors
- 2 SDI – BNC connectors
- 1 HDMI
- 1 component video – Y Pb Pr set of RCA connectors
- 1 composite video – BNC connector
- 1 composite video – RCA connector
- 2 DB-9 connectors for 2 digital AES/EBU & 2 analog XLR audio stereo pairs
- 1 RF Tuner loop-out

## Physical Specifications

Input voltage: AC 90V~260V, 50/60Hz, 50W (max); DC -48V

Dimensions & Weight: 1RU (H) / 19 (W) x 10 (L) in / 483 (W) x 255 (L) mm  
11 lbs / 5 Kg

Operating Conditions: Temperature 0~45°C; Humidity ≤95%

Storage Temperature: 20~70°C



**BE-IRD-5503 back panel**

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## Telairity

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