

SOLO8 – MicroVue3 HD Receiver Case

COFDM – Video, Audio Telemetry and IP Products

October 2016 Data Sheet

DTC



The DTC SOLO 8 MicroVue3 HD is a briefcase receiver with an inbuilt solid state recorder and PTZ control, packaged for tactical video surveillance operations. Additionally, it can be used as a remote video receiver for UAV and UGV applications. The receiver can support full HD reception and decoding.

The MicroVue3 HD combines a latest generation DTC SOLO HD Receiver with two way diversity provided by a pair of in-built down-converters and two fixed antennae in a rapidly deployable briefcase. A 9" (289mm) sunlight readable 800 x 480 resolution colour LCD screen is mounted in the lid, while a comprehensive colour touch screen panel is supplied for control and set up. The Pan/Tilt Joystick with separate zoom control is mounted on the same panel (enabled via Software Option)

The MicroVue3 HD has proven DTC technology at its core and includes a 128GB solid state HD recorder. Recorded video can be viewed on the MicroVue3 HD internal 9" screen or downloaded to a PC via USB.

Power is supplied via external DC supply or a broadcast type Gold Mount mount battery mounted inside the case. The battery can be charged in situ and can be hot swapped when the external DC supply is connected.

The unit offers support for multiple band width DVB-T (8, 7 and 6MHz) and also DTC Narrowband modulation (2.5*, 1.25*

and 0.625* MHz).

The DTC Narrowband offers unprecedented spectrum efficiency, while also increasing the system sensitivity and therefore range.

The MicroVue3 HD has a comprehensive On Screen Display diagnostic capability to show link quality and spectrum and is equipped with video, two voice and data channels. Security of transmission is ensured by the use of standard ABS encryption, or for greater security, there is optional AES128*, or AES256* bit encryption.

Features:

- Comprehensive demodulation 8 / 7 / 6 DVB-T
- Narrowband, 2.5MHz*, 1.25MHz*, 625kHz* (optional)
- Maximum ratio combining antenna diversity, for fade and multipath elimination
- 2 fixed lid mounted antennae with downconverters
- 2 inputs for externally mountable downconverters
- 9" (289mm) 800x480 colour monitor in lid
- Comprehensive On Screen Display (OSD) diagnostics for link analysis, including spectrum analyser
- Headphone output, line level output & microphone input
- DC & hot swappable AB-Mount battery operation
- 4.3" (109mm) touch screen in base for device configuration
- Option - 2 axis analogue joystick and 1 axis analogue zoom for PTZ camera control
- Option - AES128 or AES256 encryption*
- Option - Streaming video over IP (ONVIF Profile-S)

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Specification

Inputs

| | |
|-------------------------|-------------------|
| External IF 1 (Input A) | TNC |
| External IF 2 (Input B) | TNC |
| Internal RF 1 (Input C) | Antenna 1 |
| Internal RF 2 (Input D) | Antenna 2 |
| Power (12V DC) | 4 way 1B Lemo |
| Microphone Level Audio | 3.5mm Stereo Jack |

Outputs

| | |
|-----------------------|--------------------------------|
| Composite Video | BNC (Shared with HD-SDI) |
| Digital Video | Full Size HDMI BNC (HD-SDI) |
| Line Level Audio | 3.5mm Stereo Jack |
| Headphone Audio | 3.5mm Stereo Jack |
| RS232 Control | 3 way 0BLemo |
| Data | 3 way 0BLemo |
| Ethernet | RJ45 |
| USB | B Type USB 3.0 |
| PTZ Control RF Output | SMA (Option) |

Antennae

| | |
|--------------------------|-----------|
| 4dBi Colinear (Internal) | SMA Mount |
| IF External (user's own) | TNC Input |

Receive RF

| | |
|-----------------|---|
| Frequency Bands | 1.15 to 1.40 GHz # 1.65 to 2.38 GHz 2.17 to 2.50 GHz# 3.10 to 3.70 GHz # 4.40 to 5.00 GHz # 5.50 to 5.90 GHz # |
| Tuning Steps | 125 kHz |
| Receive IF | 50 to 850MHz |
| LNB Power | 9V 500mA |

Modulation

| | |
|-------------------|----------------------|
| DVB-T Bandwidth | 8/7/6 MHz |
| DVB-T Guard | 1/32, 1/16, 1/8, 1/4 |
| DVB-T FEC | 1/2, 2/3, 3/4, 5/6 |
| DVB-T Modulation | QPSK, 16QAM, 64QAM |
| DVB-T Sensitivity | -95 dBm at 8MHz |

| | |
|------------------------|----------------------|
| Narrowband Bandwidth | 2.5/1.25*/0.625* MHz |
| Narrowband Guard | 1/8, 1/16 |
| Narrowband FEC | 1/3, 2/3 |
| Narrowband Modulation | QPSK, 16QAM |
| Narrowband Sensitivity | -95 to -104 dBm |

Video

| | |
|------------------|---|
| SD Line Standard | PAL/NTSC |
| SD Resolution | 704, 528, 480, 352 |
| HD Formats | 1920x1080i 60/59.94/50Hz 1920x1080p 30/29.97/25/24/23.97Hz 1920x1080psf 30/29.97/25/24/23.97Hz 1280x720p 60/59.94/50Hz |
| Coding Mode | MPEG2, MPEG4 and AVC / H.264 |
| Delay | 60ms to 1sec depending on mode |
| Frame Rate | Full/Half/Quarter/Eighth* |

Audio

| | |
|-----------------|--|
| Sample Rate | 32kHz, 16kHz, 8kHz |
| Format | Linear or MPEG L1/L2 48kHz 64-384kb/s |
| Bits per Sample | 12 or 8 bit |

Data Interface

| | |
|-------------------|------------------------------|
| RS232 Data Output | 1K2 to 115K2 baud switchable |
|-------------------|------------------------------|

Encryption

| | |
|--------|-----------------------|
| Format | ABS AES128/AES256* |
|--------|-----------------------|

PTZ Control

| | |
|-----------------|---|
| Frequency Bands | 915MHz ISM band 868MHz ISM # 433MHz ISM # |
|-----------------|---|

| | |
|-------|-------|
| Power | 20dBm |
|-------|-------|

| | |
|---------------------------|------------------|
| PTZ Protocols via SOL8SDR | Visca Pelco-D |
|---------------------------|------------------|

| | |
|----------|--|
| Controls | 2 Axis Analogue Joystick 1 Axis Analogue Zoom Wheel |
|----------|--|

Additional controls on touchscreen

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Control

Local Control Via Touch Screen
 Remote Control Via RS232 or Web over Ethernet
 (Some options not available via RS232 or Web control)

Backlight adjustable to minimise light emission
 Full Blackout option via single button press

| | |
|-------------------|--|
| On Screen Display | RX Spectrum RX SNR, RX Power Date and Time TX battery level |
|-------------------|--|

Physical

| | |
|-----------|----------------------------|
| Dimension | L 424mm, W 332mm, H 111mm |
| Weight | 6.3kg (5.2kg with battery) |

Power

| | |
|---------------------|---|
| DC Input | 10 to 32V (60W charging, 40-45W running) |
| Battery | 2.75 hours normal operation |
| Battery Type | Gold Mount Li-Ion |
| Recommended battery | SWIT S-8110A 126Wh UN38.3 |

Environment

| | |
|-----------------------|--|
| Operating Temperature | -20 to +50 deg C (not charging batteries) +10 to +40 deg C (charging batteries) |
| Storage Temperature | -24 to +60 deg C |
| Sealing | IP66 (closed) IP42 (open and in use) |

DVR Specification

128GB SD card fitted as standard (not removable)

Product Codes:

| | |
|----------------------|---|
| SOL8MIVHD-115140-043 | 1.150-1.400GHz RF 50-850MHz IF 433MHz PTZ |
| SOL8MIVHD-175238-091 | 1.750-2.380GHz RF 50-850MHz IF 915MHz PTZ |
| SOL8MIVHD-203255-043 | 2.030-2.550GHz RF 50-850MHz IF 433MHz PTZ |
| SOL8MIVHD-203255-091 | 2.030-2.550GHz RF 50-850MHz IF 915MHz PTZ |
| SOL8MIVHD-440500-091 | 4.400-5.000GHz RF 50-850MHz IF 815MHz PTZ |

Product Code Includes

1 x External 12V DC Input Cable
 1 x UHF Telemetry Antennae

* Licensed Feature # Future Development

Products are available to security users in licensed frequency bands. Encryption licences are subject to export control. These products are not approved for use by unlicensed users. Commercial products are available if used in appropriate licensed frequency bands.

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DTC SALES CODE

Please enter required codes

SOL8MIV3 –

| Code | Frequency | PTZ |
|--|----------------|--------|
| Frequency Determined By Internal Down Converters | | |
| 207043 | 1.750-2.380MHz | 433MHz |
| 207091 | 1.750-2.380MHz | 915MHz |

| Code | Software License |
|------|------------------------|
| S | Silver <i>included</i> |
| G | Gold |
| P | Platinum |

| Code | Encryption |
|-------------------------------------|-------------------|
| <i>* ABS32 included as standard</i> | |
| AES128 | AES128 Decryption |
| AES256 | AES256 Decryption |

| Code | BCrypt |
|-----------------------------|--------|
| <i>* restrictions apply</i> | |
| BC | BCrypt |

| Software License Code Includes | |
|--------------------------------|---|
| Silver | DVB-T, MPEG-2, H.264 SD |
| Gold | Silver plus MPEG-4, H.264 HD, Narrowband 1.25MHz & 2.5MHz, IP Decoding, Recording (<i>SD Narrowband only</i>) & Streaming |
| Platinum | Gold plus Ultra Extreme Narrowband 625kHz, Ultra Mobile Video Link (UMVL) |

| Product Code Includes | |
|-----------------------|-------------------------------|
| CA0113 | 12VDC Power lead Lemo-wire 3M |
| AP009029 | Tri-Band Telemetry Antenna |
| | |

| Compatible Products (sold separately) | |
|---------------------------------------|-------------|
| SOL4MTX | Transmitter |
| SOL5TX | Transmitter |
| SOL7NTX | Transmitter |
| SOL7HDNTX | Transmitter |
| SOL8SDR | Transmitter |

| Related Accessories (sold separately) | |
|---------------------------------------|---|
| CA2092 | External 80W 12V Desktop Power Supply Plus IEC mains cable to suit |
| MIVHDBAT | 126Wh Lithium Ion Battery Pack |
| DCB/DCBGS | Various frequency codes available, please consult RF section of the datasheet |
| Antennas | Various frequencies available |
| CABRF | RF Cable |