



**SHENZHEN SAFE GUARD CO.,LTD.**

COFDM SPECIALIST

Mobile video wireless communication



# P R O D U C T C A T A L O G U E



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## *Company Profile*

SAFE GUARD, founded in 1999, is a leading global technology company specializing in wireless microwave video and data communication system for government surveillance, law enforcement, military, UAV/UGV and broadcast markets, etc.

We have strong production and R&D groups. Our backbone in researching and production are from the previous state-run 806 plants and 54 Institute. Over the 19 years, SAFE GUARD is devoting itself to designing and developing COFDM communication systems. For now, SAFE GUARD has built up a mature COFDM product line, mainly including standard COFDM wireless transmitter & receiver, TDD-COFDM wireless video & data transceiver, COFDM IP MESH, and the latest technology FDD-COFDM wireless video & data transceiver. Moreover, we offer customized solutions and services for clients to any kinds of wireless transmissions they need--simplex, duplex, or mesh network.

Our COFDM systems have been exported to more than 32 countries covering Asia, Africa, Europe...especially in Middle-East. Each product goes through strict test and inspection with US original (HP) spectrum analyzer and Germany (Rohde & Schwarz) Network Analyzer. We aim to design and provide exclusive advanced wireless transmission system worldwide. Your support and feedback are our motivation!





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## FDD-COFDM Wireless IP Transceiver

### SG-FDD2W Transceiver

#### 【Features】

- ◆ Frequency01: 300-2500MHz selection  
Frequency02: 300-2500MHz selection
- ◆ RF output power: 2Watt
- ◆ Modulation: COFDM
- ◆ RF bandwidth: 1/2/4/8MHz
- ◆ Encryption: AES 128 bit
- ◆ Interfaces: 2\*RJ45, RS232 port, 115200bps max
- ◆ Non-line-of- sight communication
- ◆ Video resolution: 1080P/i, 720P/i
- ◆ Size: 131\*92\*39mm
- ◆ Weight: 517g
- ◆ Working mode: dual separate frequency band  
uplink & downlink



### SG-FDD5W Transceiver

#### 【Features】

- ◆ Frequency01: 300-2500MHz selection  
Frequency02: 300-2500MHz selection
- ◆ RF output power: 5Watt
- ◆ Modulation: COFDM
- ◆ RF bandwidth: 1/2/4/8MHz
- ◆ Encryption: AES 128 bit
- ◆ Interfaces: 2\*RJ45, RS232 port, 115200bps max
- ◆ Non-line-of- sight communication
- ◆ Video resolution: 1080P/i, 720P/i
- ◆ Size: 200\*130\*60mm
- ◆ Weight: 3kg
- ◆ Working mode: dual separate frequency band  
uplink & downlink



### SG-FDD30W Transceiver

#### 【Features】

- ◆ Frequency01: 300-2500MHz selection  
Frequency02: 300-2500MHz selection
- ◆ RF output power: 30Watt
- ◆ Modulation: COFDM
- ◆ RF bandwidth: 1/2/4/8MHz
- ◆ Encryption: AES 128 bit
- ◆ Interfaces: 2\*RJ45, RS232 port, 115200bps max
- ◆ Non-line-of- sight communication
- ◆ Video resolution: 1080P/i, 720P/i
- ◆ Size: 325\*250\*120mm
- ◆ Weight: 8.7kg
- ◆ Working mode: dual separate frequency band  
uplink & downlink



### SG-FDD100W Transceiver

#### 【Features】

- ◆ Frequency01: 300-2500MHz selection  
Frequency02: 300-2500MHz selection
- ◆ RF output power: 100Watt
- ◆ Modulation: COFDM
- ◆ RF bandwidth: 1/2/4/8MHz
- ◆ Encryption: AES 128 bit
- ◆ Interfaces: 2\*RJ45, RS232, RS485, HDMI, HD-SDI, BNC
- ◆ Non-line-of- sight communication
- ◆ Video resolution: 1080P/i, 720P/i
- ◆ Size & weight: undetermined
- ◆ Working mode: dual separate frequency band  
uplink & downlink





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## Wireless IP MESH

### SG-MS1400 COFDM MESH

#### 【Features】

- ◆ Frequency: customized
- ◆ RF output power: 2/4Watt
- ◆ Modulation: COFDM
- ◆ RF bandwidth: 5/10MHz
- ◆ Encryption: AES 128 bit or custom
- ◆ High transmission rate: peak 11Mbps @ 10MHz
- ◆ Support GPS, WIFI module
- ◆ Non-line-of- sight communication
- ◆ Self-organizing network
- ◆ Self-encrypting security
- ◆ Networking capability up to 16 nodes
- ◆ Cover distance: Customized
- ◆ Weight: 1.4Kg



### SG-MESH-1

#### 【Features】

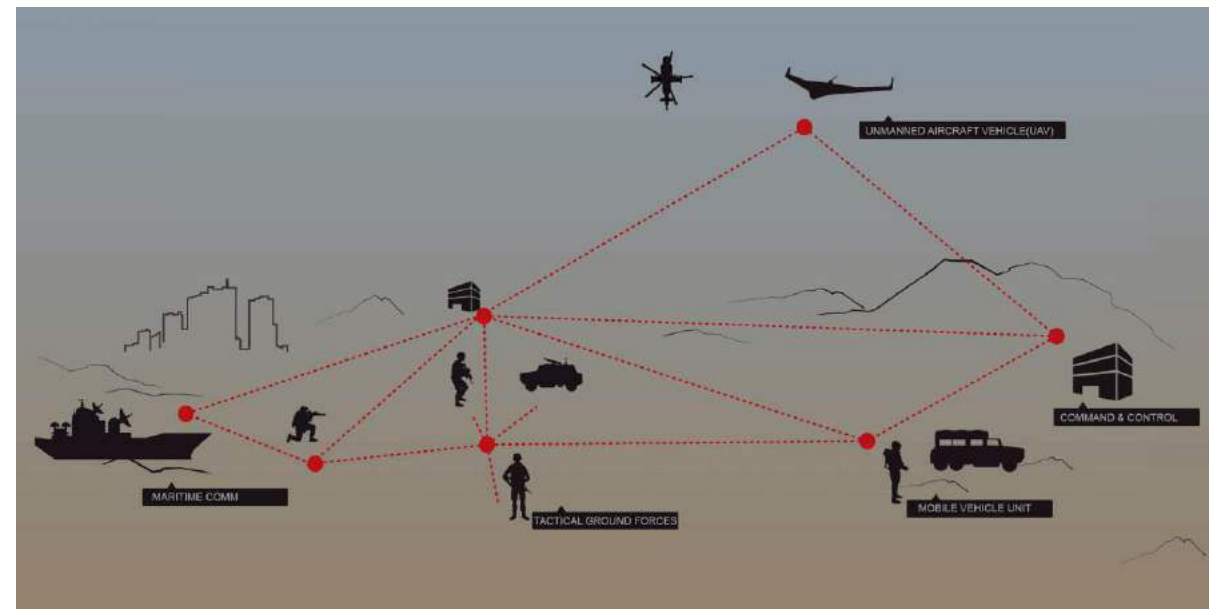
- ◆ Frequency: 700/1400 MHz(other frequency can be customized)
- ◆ RF Power: 1W
- ◆ Bandwidth: 5M/10M/20M/40MHz (Adjustable)
- ◆ Power supply: DC12V
- ◆ Data port: RS485/RS232/RS422
- ◆ Network port: 2\* RJ-45
- ◆ Modulation: QPSK OFDM BPSK
- ◆ Two-way audio video data signals transmission
- ◆ Encryption: AES
- ◆ Size: 131\*103\*29mm
- ◆ Weight: 460g



### SG-HMS01W Portable MESH

#### 【Features】

- ◆ Frequency: customized
- ◆ RF output power: 100mW~1Watt
- ◆ Modulation: COFDM
- ◆ RF bandwidth: 5/10MHz
- ◆ Encryption: AES 128 bit or custom
- ◆ High transmission rate: peak 11Mbps @ 10MHz
- ◆ Support GPS, WIFI module
- ◆ Non-line-of- sight communication
- ◆ Self-organizing network
- ◆ Self-encrypting security
- ◆ Networking capability up to 16 nodes
- ◆ Cover distance: Customized







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## COFDM Wireless Video Tx

### SG-HD103 Transmitter

#### 【Features】

- ◆ Support 1080i/1080P HD transmission;
- ◆ COFDM modulation;
- ◆ Built-in with HDMI or HD-SDI interface (single selection) ;
- ◆ Can request to add BNC interface;
- ◆ Small size and lightweight;
- ◆ All parameters can be adjusted by user;
- ◆ Size:167\*90\*25mm;
- ◆ Weight: 515g.



### SG-HD153 Transmitter

#### 【Features】

- ◆ Frequency: 300MHz-4.4GHz
- ◆ RF Power: 1.5Watt(adjustable)
- ◆ Voltage: DC12V/960mA
- ◆ Modulation: COFDM 2K QPSK
- ◆ RF Bandwidth: 4/8MHz(adjustable)
- ◆ Data Encryption: AES128/256 bits
- ◆ AV Input: HD-SDI &HDMI and AV (3 interfaces)
- ◆ Resolution: 1080i/P & 720P
- ◆ Distance: 1-40km UAV to ground, NLOS 500-600m
- ◆ Size: 110\*58\*27mm
- ◆ Weight: 302g



### SG-HD105 Transmitter

#### 【Features】

- ◆ COFDM modulation, stability signal
- ◆ HD-SDI/HDMI and BNC input
- ◆ Bandwidth 2/2.5/4/8MHz adjustable
- ◆ HD video & Balanced stereo audio input.
- ◆ Dual V battery mounts
- ◆ 5-8W rf power output adjustable
- ◆ Live broadcasting
- ◆ Size: 180\*110\*85mm, Weight:1.6kg



### SG-HSA35 Transmitter

#### 【Features】

- ◆ Frequency: 300MHz-4.4GHz
- ◆ RF Power: 5W
- ◆ Voltage: DC12V
- ◆ Modulation: COFDM
- ◆ RF Bandwidth: 2/2.5/4/8MHz (adjustable)
- ◆ AV Input: HD-SDI, HDMI, and BNC (3 interfaces)
- ◆ Resolution: 1080P/i, 720PP/i
- ◆ Size: 230\*150\*66mm
- ◆ Weight: 2.88kg





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## COFDM Wireless Video Tx

### SG-HD25W Transmitter

#### 【Features】

- ◆ Full hd resolution 1080P/1080I
- ◆ Support 15-25W rf power
- ◆ COFDM modulation, H.264 video compression
- ◆ Built in with HDMI/HD-SDI and BNC ports
- ◆ Support L/R stereo audio in/out
- ◆ Strong heat resistance capacity
- ◆ 2/2.5/4/8MHz RF bandwidth
- ◆ PAL, NTSC video format
- ◆ Size: 280\*220\*70mm
- ◆ Weight: 5kg



### SG-HVT01 Transmitter

#### 【Features】

- ◆ COFDM modulation, good stability
- ◆ H.264 video compression, DVD quality
- ◆ 1Watt RF Power Output
- ◆ RF bandwidth: 2/2.5/4/MHz(adjustable)
- ◆ Video and two way audio communication
- ◆ Works well in NLOS & fast-moving conditions
- ◆ HDMI, HD-SDI, CVBS, Mini-SDI, MIC ports
- ◆ With walkie talkie function
- ◆ Size: 154\*86\*59mm
- ◆ weight: 892g



### SG-H5000B Transmitter

#### 【Features】

- ◆ 5-8Watt rf power output
- ◆ Full hd resolution, 1080i/1080P
- ◆ H.264 Video Compression
- ◆ Has HDMI/SDI and BNC Composite ports
- ◆ 2/2.5/4/8MHz bandwidth
- ◆ With 4 holes at the bottom for fixed installation
- ◆ Widely used in UAV shooting, Live broadcast and etc
- ◆ Size: 190\*120\*60mm
- ◆ Weight: 1.4kg



### SG-T5000S Transmitter

#### 【Features】

- ◆ 5-8Watt rf power output
- ◆ 2/2.5/4/8MHz bandwidth
- ◆ Built-in with battery 2300mA or no battery inside
- ◆ Bnc and aviation plug
- ◆ DC12V or customize others
- ◆ Good quality and DVD resolution
- ◆ Lightweight and in small size
- ◆ Size: 180\*100\*60mm
- ◆ Weight: 1444g





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## COFDM Wireless Video Tx

### SG-S20 Transmitter

#### 【Features】

- ◆ COFDM modulation, Stable transmission
- ◆ MPEG-4/H.264 video Compression, DVD video quality
- ◆ Low consumption, has two fancooled radiators
- ◆ works well in NLOS&fast moving conditions
- ◆ BNC ports
- ◆ Modular design, compact structure, OEM design
- ◆ Be safety with AES 128 encryption
- ◆ LCD screen showing parameters and working status
- ◆ Size: 220\*140\*60mm
- ◆ weight: 2.3kg



### SG-30H Transmitter

#### 【Features】

- ◆ Rack designed special for vehicle placed.
- ◆ RF power output 30W/50W/100W/200W option
- ◆ AES128bits encryption
- ◆ Standard BNC ports, or HDMI/SDI interface
- ◆ High definition and good image effects;
- ◆ Support high speed mobile transmission
- ◆ Strong ability of anti-interference, diffraction and penetration;
- ◆ Can up to about 100km and more in LOS environment /50km NLOS in suburb.
- ◆ Use in rescue, field operations and other emergency communication systems;
- ◆ Size: 400\*230\*160mm, Weight: 13kg



### SG-R5000 Transmitter

#### 【Features】

- ◆ COFDM modulation, stability
- ◆ 8Watt RF power output
- ◆ BNC interfaces, for any normal cameras
- ◆ DC12V/1.9A Power supply
- ◆ Support video and stereo L/R audio channel
- ◆ Works well in NLOS&fast moving conditions
- ◆ Connected with flexible antenna better for Man-pack
- ◆ Size: 200\*130\*60mm, weight: 1.5kg



### SG-HDS1000A Transmitter

#### 【Features】

- ◆ 1Watt RF power output
- ◆ 2/2.5/4/8Mhz bandwidth
- ◆ Full hd resolution, H.264 coding
- ◆ Small size and lightweight
- ◆ CVBS, SDI/HDMI hd interfaces
- ◆ Works well in NLOS/LOS and fast-moving conditions
- ◆ Suitable for UAV shooting and wearable
- ◆ Low delay
- ◆ Size: 100\*59\*22mm
- ◆ Weight: 195g





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## COFDM Wireless Video RX & Repeater

### SG-DR2000 Receiver

#### 【Features】

- ◆ Small size and lightweight;
- ◆ BNC interfaces or customize HD port
- ◆ Easy to be carried.
- ◆ Support 720p OR 1080P resolution
- ◆ Video and Stereo audio output;
- ◆ <-105dBm Sensitivity:
- ◆ COFDM modulation, MPEG-4 or H.264 coding
- ◆ Size: 160\*130\*30mm
- ◆ Weight: 1.6kg



### SG-H15 Repeater

#### 【Features】

- ◆ RF Power: 20Watt
- ◆ Power supply: DC12V /4.5A
- ◆ Receive frequency: 200-980MHz (can customize other band)
- ◆ Transmit frequency: 330-370MHz (or customize other band)
- ◆ RF bandwidth: 4MHz/8MHz
- ◆ Power supply: DC12V (with internal battery, support 3 hrs working time)
- ◆ Power supply requirement: at least 45A
- ◆ Dimensions: 250 \* 200 \* 80mm



### SG-HR50 Receiver

#### 【Features】

- ◆ HD COFDM AV receiver
- ◆ Supported multi-socket output
- ◆ HDMI, and BNC outputs
- ◆ <-105dBm Sensitivity
- ◆ Transmit video and audio signal simultaneously
- ◆ Can be with RS485/RS232 data control together
- ◆ 1.5U Rack design, easy to installed in Car
- ◆ Size: 480\*370\*60mm, Weight: 4kg



### SG-HR101 Receiver

#### 【Features】

- ◆ High safety and reliability
- ◆ Built in with 7" 1080P HD LCD screen
- ◆ Small size and lightweight for portable
- ◆ COFDM modulation, H.264 decoding
- ◆ USB plug for memory copy
- ◆ Special designed with a sun shade, sun clearly visible
- ◆ Multicarrier dual antennas diversity reception
- ◆ Support video audio transmitting synchronously
- ◆ Size: 350\*215\*50mm, Weight: 3.2kg







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## COFDM Wireless Video Ground Station

### SG-CH4 Receiver

#### 【Features】

- ◆ Standard COFDM reception
- ◆ Special designed with 17inch LCD monitor DVR
- ◆ Single channel or 4CH Video audio recording and monitoring
- ◆ Internal 500G/1TB SSD memory
- ◆ BNC, HDMI, USB, RJ-45 ethernet ports and etc.
- ◆ Support remote control dynamic IP, support IE browsing
- ◆ Can control operation system by using an external keyboard
- ◆ Size: 535\*437\*213mm
- ◆ Weight: 22kg
- ◆ One channel receiver is available



### SG-HC01 Receiver

#### 【Features】

- ◆ Bandwidth: 2/2.5/4/8MHz (adjustable)
- ◆ BNC, HDMI port, 1080P resolution
- ◆ Camera control: joystick, RS485 signal
- ◆ Data serial ports: RS232/RS485
- ◆ Video and Stereo audio output;
- ◆ Encryption: AES128 user-defined password
- ◆ COFDM modulation, MPEG-4 / H.264 coding
- ◆ Size: 525\*437\*213mm
- ◆ Weight: 14kg



### SG-SRT01 Receiver

#### 【Features】

- ◆ The military suitcase box is from PELICAN
- ◆ Very sharp image, support 720P or 1080P definition image
- ◆ Support 1CH or 4CH av signals receiving at the same time.
- ◆ Standard 17inch Samsung hd LCD screen
- ◆ Insert DVR with 120G / 500G SSD memory
- ◆ Control operate system by using external mouse.
- ◆ Work well in NLOS and moving transmission
- ◆ Support remote control, dynamic IP and can realize IE browsing.
- ◆ Extra USB insert easy to your hard disk to copy the video
- ◆ The left space for your PC placed, more convenient
- ◆ Size: 927\*355\*152mm
- ◆ Weight: 23kg



### SG-HR101 Receiver

#### 【Features】

- ◆ COFDM modulation
- ◆ H.264 video compression
- ◆ Good quality 720P resolution
- ◆ Modular design and highly integrated
- ◆ Dual aerial designed for better signal receive simultaneously
- ◆ Standard 17inch Samsung LCD screen
- ◆ Insert with DVR, support video recording and playback.
- ◆ Provides two joysticks to control your camera PTZ and flight simple actions.
- ◆ Provides 2 USB ports for mouse control, and back-up files.
- ◆ Work well under fast moving signal receiving and support NLOS transmission





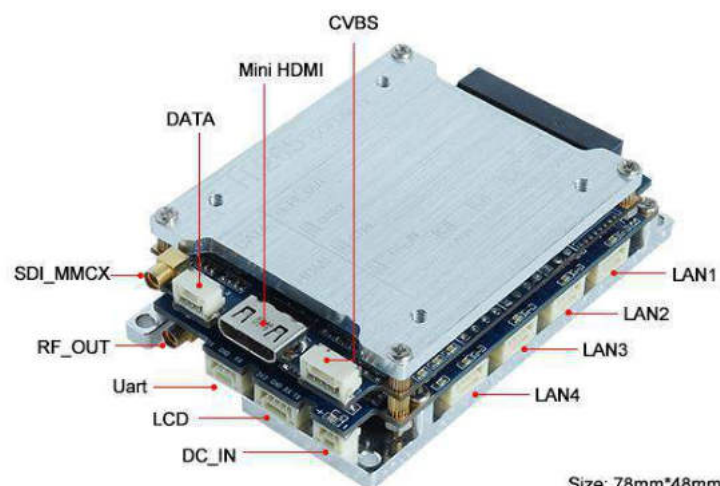
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## COFDM H.265 Transmission System

### SG-TM308 H.265 Transmitter PCB

#### 【Features】

- ◆ Standard COFDM reception
- ◆ H.265 video encoding
- ◆ Triple video inputs HDMI/HD-SDI/CVBS
- ◆ 4 channel UDP unidirectional network & video streaming sync.
- ◆ BNC, HDMI, USB, RJ-45 ethernet ports and etc.
- ◆ UART serial one way data transmission
- ◆ Size: 78\*48\*20mm

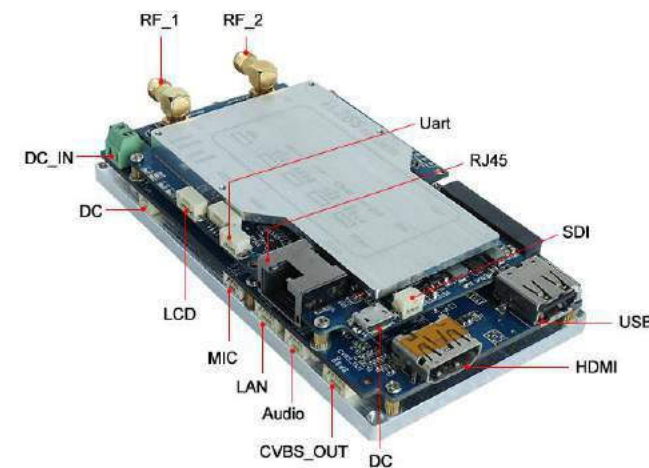


Size: 78mm\*48mm\*20mm

### SG-RX309 H.265 Receiver PCB

#### 【Features】

- ◆ H.265 video encoding
- ◆ Triple video output HDMI/HD-SDI/CVBS
- ◆ 1 channel LAN UDP network
- ◆ UART one way serial data transmission
- ◆ Latest COFDM modulation
- ◆ Built-in with USB for video recording
- ◆ Size: 120\*65\*27mm



Size: 120mm\*65mm\*27mm

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Expert in COFDM Wireless MESH Mobile Communication