ALLWAN | SECURITY
VIDEO & SECURITY SOLUTIONS

Transmetteur COFDM : SG-2410NB

Caractéristiques Techniques :

SG-2400NB Transmetteur vidéo & télémétrie	
Item	2.4GHz High Quality Full-Duplex Digital Wireless Video Transmitter Receiver
Ethernet	10/100BaseT、Auto-MDI/X、IEEE802.3
	TCP,UDP,TCP/IP,TFTP,ARP,ICMP,DHCP,HTTP,SNMP,FTP,
Protocols	RS485 Pelco-D / Visca
Power supply	DC7V～17V, 6W consumption
Output frequency	2405～2479MHz（adjustable）
Bandwidth	4MHz/8MHz (adjustable)
Error rate	≤10-6
RF Power	100mW-1 Watt (30dBm) ajustable
Work mode	bi-directional, Full duplex working mode
Interface	RJ-45 Ethernet ,RS232/RS485/RS422
Resolution	Support 720P and 1080P@50/60hz, 30 frames
Encryption mode	128bit AES(or 256bit AES)
Error correction mechanism	32bit of CRC,ARQ
Modulation	TDD_COFDM
Parameter control	Through OLED control panel to modify parameters
Working temperature	-40℃～85℃
Dimension	75*51*22mm
Weight	135g

Description

SG-2400NB TDD_COFDM are the new developing products of our company .It is wireless transmission equipment for our latest Mini pure digital. The use of advanced time division processing , TDD bidirectional network transmission and the leading COFDM modulation technology combined, provide complete bi-directional encryption (support AES_128 encryption) and user-defined password network data transmission channel, anti multipath, high speed mobile data, voice the perfect product. H.264 codec technology as the core, assigning channel resources through slot control, through the sub-carrier frequency flexibly assigned to multiple user terminals, within the same frequency maximized realized access multiple endusers multiple access. In the NLOS and high speed movement realize real-time two way transparent information transmission, Multiple wireless networks can be integrated with each other layout large network coverage. As its super small volume, light weight especially suitable for application in UAV, High-speed Rail, train and other complex environments.

Features:
Provide up to 6.5Mbps of data flow, dynamic adaptive rate allocation technology
Smart settings, simple operation, easy to use;

- Support transparent PTP&PMD network technology
- Safety with AES 128 bit, can set user's password;
- Support non line of sight (NLOS) high-speed mobile transmission
- Provide standard RS-232&RS-485 + RJ45 ethernet
- Transmit/receive video audio,data and other multimedia signals simultaneously
- Support high standards of Industrial and military level applications
- The small volume, light weight, easy to carry, the radiating aluminum casing
- High clear OLED digital display, the interface simple and easy operation

2. Function:

ST2410CO is special designed for high speed data transmission in movement. The transmit rate up to **2~8Mbps**, which can meet high quality video, audio and data transmission. It includes text files, office documents, audio and video files, share files, access to the Internet, access the Intranet, access and download the database, dial telephone exchange, remote maintenance and other function on virtual network.

3. Product Advantages:

1. Adopt TDD technology combine with COFDM modulation
2. Horizontal on gound: 1-10km, Air to ground: 8-20km, Horizontal on sea 10-30km
3. Standard RS-232/ RS-422/ RS-485/ RJ45 data input /output
4. AES 128-bit channel integration, customer manually customize the encryption KEY
5. System low delay: TX to RX 10-30ms
6. Support PTP& PTMP network composing
7. Support dual-way transmission, support to package form data, audio and video data, asynchronous serial data communication
8. Stable digital signal transmission in high speed movement and multi interference environment
9. Strengthen heat dissipation, bring the power consumption down
10. Mini size, light weight, portable plug &play with omni antenna to receive

4. Applicaton:

Suitable for using in complex environment: small size, light weight, and portable, usually use for short range high speed wireless data transmission, aerial long range high speed wireless data transmission. For special transmission: UAV, light UAV, rotorcraft, MUAV, drone aircraft, UUV, unmanned ship, airship, ACTUV, high-speed rail, UGV, Unmanned machine etc...for regular transmission at land, suitable for short range NLOS or NOS data transmitting. With digital and data interface, digital Ethernet interface, standard industrial **RS-232、RS-422、RS-485** interface, customized analog audio, video input intercom interface.

5. Product Show

6. Special Feature

TDD Anti-electromagnetic Interference Performance

Compared with FDD need multi frequency to realize dual-way communication, TDD just requires only one single frequency, and these frequency also need big frequency space to avoid interference. Multi-carrier technology has strong ability to resist long delay and strong anti-multipath. So TDD is more suitable to apply in city environment

It has strong ability to against frequency selective fading or narrow band interference by signal wave forms through joint coding of each sub-carrier. In a single carrier system (such as digital microwave, spread spectrum microwave etc.), a single fading or interference can result in link failure of the entire communications, but in COFDM multi-carrier system , only a very small part of the sub -carriers disturbed, and these sub channel may also employ error correction code for recovery, make sure low error rate of transmission

COFDM Anti-multipath Fading

It can be effective against signal interference between wave forms for high-speed data transmission and multi-path fading channel environment. When the channel appear frequency selective fading because of the multi-path transmission, only the sub-carrier band that falls depression and its carrying information will be affected. other sub-carriers are intact. Thus the overall system's error rate will be better.

Device Application Form

The device is suitable for data transmission in air. Wireless video transmission on UAV. Air to ground distance: 8-20km.

It also can be used for man-pack to communication van, communication van to communication van, communication van to monitor center, Ship to monitor center.

Horizontal Distance(on ground)(LOS): 1-10km

Horizontal Distance(on sea)(LOS): 10-30km