

ACCUASN LAN CU

Technical information

ACCUASN LAN CU-Controller

ACCUASN Bidirectional Communication System

An AccuASN wireless communication system was designed to operate in rough communication environment.

An AccuASN network comprised the following components: up to 18,000 nodes, up to 30 routers (Hubs) and a single CU. Routers could be added to increase the network range. The AccuASN LAN CU can be connected to the Host using USB, LAN port or Cellular network.

Several networks can be operated in parallel separated by distance of a few Km between routers (hubs) and nodes that share the same communication channel. Range between router (hub) and nodes is 50~100m in busy RF lot and can extend a few hundred meter or more by using routers.

1.1 System Components

- Nodes - up to 18000 nodes in a single network.
- Routers (Hubs)- up to 30 hubs in a single network; each uses a different channel. 30 of routers could be used to increase the communication distance between the router (Hub) and the CU.
- CU- a single communication unite that handles the communication between the host and the network.

1.2 System Architecture

Nodes are registered to a specific router (Hub). The Host controls the registration process and can attach or detach nodes as required as well as configure the nodes to send the event data in random intervals.

1.3 Capacity

A single AccuASN wireless network supports up to 18,000 Nodes. Larger number of Nodes requires deployment of several networks.

A large number of Nodes s also requires advcanced middleware software to handle the messages between the application and the AccuASN system.

1.4 Frequencies

AccuASN wireless system uses the ISM frequency bands; in cases the 433 Mhz band and 922.36Mhz~924.8Mhz.

1.5 Data Transmission

An AccuASN system can receive and transmit message of 64 bytes and more. Even maximum is 64 byte but can transmit big data by splitting it.

1.6 Range

In optimal conditions and standard antenna the range of AccuASN Nodes s and routers (Hubs) is up to 100m and more. However Range will be shortening by 50m in bad environment .

1.7 Scalability

An ACCUASN network could be easily extended as required up to its maximum ca-

capacity. Contents	Feature & Spec
Picture	
Radio Frequency	433.050Mhz~434.790Mhz, 922.36Mhz~924.8Mhz
Operating RF Channel	CH1~CH3, 3ch for Channel
TX Power	Below 10mW
Band Width	8.5Khz (-3db)
RX sensitivity	-118dbm
Baud Rate	1152000bps
Operating power	5 Volts DC
Power consumption	500mA, TX:28mA, RX:40mA
RF coverage (Sensor to Router)	Line of site up to 200 meters
Serial interface	RS232
Serial port property	Baud rate:300bps~230,4000bps, Data bits:5,6,7,8 bits, parity: None, Even, odd, Mark, Space Stop bit:1, 1.5, 2
	10Base-T/100Base-TX Ethernet (RJ45). Ethernet speed auto sense, 1;1 or Cross-over cable auto sense
	TCP, UDP, IP, ICMP, ARP, Ethernet, Telnet, TFTP, DHCP, PPPoE, DNS
	TCP server (T2S), TCP Client (COD),TCP server/ client with AT
Mounting	Wall mounted
Operating temperature	-20℃~70℃
Storage temperature	-20℃~80℃
Power supply	Standard power network, 5VDC, 1A of power adaptor

