iNET300/iNET900

Wireless IP/Ethernet Connectivity



The iNET300/iNET900 is a long-range, highspeed, industrial, wireless IP/Ethernet solution.

It allows customers to bring business information over Ethernet or a sreial gateway and onto IP based networks. This includes mission-critical. revenue-generating data from fixed assets such as oil and gas wells, compressor stations, pipelines. fluid storage tanks and utility meters. It also enzbles mobile network access for vehicle based operation.

The iNET300/iNET900 uses advanced 340/900MHz FHSS technology for license-free operation in the 336-344/902-928MHz ISM band. It is capable of up to 90 mile range (line-of-sight)² and up to 512Kbps/1Mbps over-the-air data rate communications. This product is available for use in Class 1, Division 2, Groups A,B,C&D hazardous locations.¹

WHY USE AN INET WIRELESS NETWORKING SOLUTION?

Longest range industrial product in its closs. Providing lowest cost of ownership.

Secure wireless operation with multiple layers of protection, including a 340/900MHz physical layer, RADIUS authentication and AES-128 data encryption with automatic key rotation.

Reliable - Designed and built for low failure rates and reduced maintence costs.

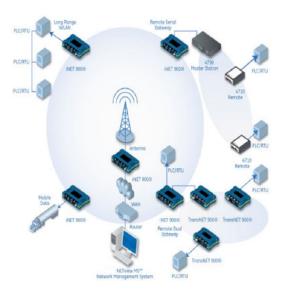
Reliable - The P21 protected Access Point (a chassis housing two radios in a cold standly configuration)increases the availability of mission-critical point-to-multipoint networks. P21 Remote stations can also be used to form protected point-to-point links.

Flexible - The iNET supports multiple users connecting to multiple applications via multiple protocols on the same iNET unit or the same network - simultaneously!

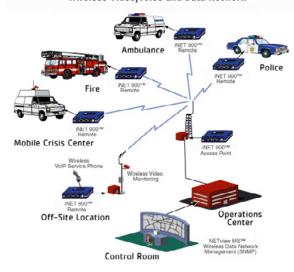
Future proof - The iNET adheres to open standards, allowing it to interface with a wide range of external devices enabling both new and old technologies to communicate.

Comprehensive Network Management - Compatible with NETview MS[™] and any standard off-the-shelf SNMP management system.

- Long range Up to 90 miles
- High speed Up to 512Kbps(iNET300) Up to 1Mbps(iNET900)
- Secure multiple layers of cybersecurity including:
 - AES-128 encryptio
 - RADIUS authentication
- Ethernet and serial interfaces allow migration of existing serial devices to IP networks
- Industrial grade performance -UL Class 1 Div 2¹ & extended temperature range for extreme environments
- License free deploy immediately
- Pluy and play connectivity configuration requires virtually no setup
- VLAN capability(802.1Q)allows multiple segregated data filows over a single radio
- · Long range wireless Ethernet
- Gateway for serial/legacy networks and/or devices to IP network
- · Video and/or voice-over-IP
- Mobile network access for vehicle based operation



Wireless Video, Voice and Data Network





iNET300/iNET900 SPECIFICATIONS

General

Data Rate: 256Kbps/512Kbps(iNET300) 512Kbps/1Mbps(iNET900) user configurable air link 1,200-115.2 bps serial ports

Frequency Band:

336-344 MHz ISM band(iNET300) 902-928 MHz ISM band(iNET900)

Spreading Mode: DTS/FHSS

Range(iNET300-256Kbps): Typical fixed range:25 miles

Maximum fixed range:90miles Typical mobile range(parked):8miles Typical mobile range(moving):5miles

Range (iNET300-512Kbps):

Typical fixed range:15 miles Maximum fixed range:25miles

Range (iNET900-512Kbps):

Typical fixed range:25 miles Maximum fixed range:90miles Typical mobile range(parked):8miles Typical mobile range(moving):5miles

Range (iNET900-1Mbps):

Typical fixed range:15 miles Maximum fixed range:25miles

Available Configurations:

Access point/remote dual gateway - serial and ethernet

Remote Ethernet Bridge - Ethernet Only

Remote Serial Gateway - serial only P21 protected station - tow radios in one chassis(cold stangby)

Radio

INET 300

System Gain:150dB @ 256 Kbps 140dB @ 512 Kbps Carier Power:0.5 to 5 / 5 to 25 watt Output Impedance:50 Ohms Occupied Bandwidth:316.5kHz Modulation:CPFSK(continuous phase FSK) Receiver

> -101dBm @ 256 Kbps with 10⁻⁶ BER -97dBm @ 512 Kbps with 10⁻⁶ BER

iNET900

System Gain:139dB @ 512 Kbps 134dB @ 1Mbps Carier Power:0.1 to 1 / 1 to 15 watt Output Impedance:50 Ohms Occupied Bandwidth:600 kHz Modulation:CPFSK(continuous phase FSK) Receiver Sensitivity:

> -97dBm @ 512 Kbps with 10⁻⁶ BER -92dBm @1Mbps with 10⁻⁶ BER

Physical Interfaces

Ethernet:10BaseT,RJ-45 Serial:COM1:RS-232/485/V.24,DB-9F,DCE COM2:RS-232/485/V.24,DB-9M,DCE Anternna:TNC connector(female)

LEDs:Lan,Com1,Com2,power,link

Protocols

Wireless:CSMA/CA(Collision Avoidance) Ethernet: IEEE 802.3. Ethernet II, Spanning Tree(Bridging),IGMP

TCP/IP:DHCP,ICMP,UDP,TCP,ARP,Multicast, SNTP, TFTP

Serial:PPP,Encapsulation over IP(tunneling) for serial async multidrop protocols including Modbus.DNP.3.DF1,BSAP

Optional:Allen- Bradley EtherNET/IP* -Modbus/TCP

Cyber Security Suite, Level 4

Encryption: AES-128 with automatic key rotation

Authentication:802.1x,RADIUS,EAP/TLS.

PKI.PAP.CHAP

Management:SSL,SSH,HYYPS Traffic Segregation:802.1Q VLAN

Management

HTTP, HTTPS, SSH, TELNET, local console SNMPv1/v2/v3,MIB II,Enterprise MIB SYSLOG NETview MS[™]

Environmental

Temperature:-40°C to +70°C (-40°F to +158°F) Humidity:95% at 40°C (104°F) non-condensing

Electrical

INET 300 Input Voltage: 10.5-16Vdc

Mode 13	8.8Vdc	
Current Consumption(nominal):		
input voltage. 10.	5-10 vuc	

modo	10101010
Transmit	1.2A(5W RF Output) 5.0A(25W RF Output)

Receive **INFT 900**

Input Voltage: 10.5-30Vdc(1W), 10.5-16Vdc(15W)

Current Consumption(nominal):

Mode	13.8Vdc	24Vdc
Transmit	510mA 5.0A(15W	290mA(1W) RF Output
Receive	200mA	120mA

Mechanical

Case Die Cast Aluminum

Dimensions:

INET 300 3.8H x 20.3W x 10.2D cm(5W) 5.0H x 20.3W x 10.2D cm(25W) **iNET 900** 3.15H x 17.2W x 11.2D cm(1W) 5.0H x 20.3W x 10.2D cm(15W)

Weight:

iNET 300 1kg(5W), 1.2kg(25W) **INET 900** 908g(1W),1.2kg(15W)

Mounting Options.Flat surface mount

brackets.DIN rail,19' rack tray

P21 Option:

Case Steel(rack mountable 2U)

Dimensions:8.9H x 48.3W x 35.6D cm (3.5H x 19W x 14D in)

Weight: 7.6kg, (14.7lbs) with transceivers

Agency Approvals

FCC Part 15.247

UL/CSA Class 1 Div.21

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Shenzhen Sinosun Technology Co.,Ltd.

Address: Room 3A17, South Cangsong Building, Tairan Science Park, Futian District, Shenzhen City, Guangdong Province, P. R. China. Postcode: 518040 Phone: +86 755 83849417 83435240 Fax: +86 755 83849434 E-mail: 13823678436@139.com WWW.SINOSUN.CN Johnson: +86 13902912908(Moblie&WeChat) +852 44017395(Moblie&WhatsApp) Tony: +86 13823678436(Moblie&WeChat) Xi'an: +86 13991217256 Beijing: +86 13811936491 Shanghai:+86 13564038257 Chengdu: +86 13540153264

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