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INNOVATION COMMUNICATIONS SYSTEMS LTD

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INNOVATION COMMUNICATIONS SYSTEMS LTD- YOUR IT PARTNER...+24 years of Industrial Experience & Exposure

Defence Products

Wide Band Digital Recorder
Digital Audio Recorder
Digital Audio & Data Recorder
Narrow Band Signal Analyzer
FDM Signal Analyzer
Operator Intercom
Data Logger with SS7
SATCOM QPSK Modem
SIP Stack for SIP Client
DCME Interceptor
A.bis Interceptor
Software Defined Radio
VOIP Recorder
Spectrum Processor

Telecom Products

Ringer Cards
Electronic Relay Sets
KVM (Keyboard Video Monitor)
Narrow Band Signal Analyzer
FDM Signal Analyzer
Multiplexer
Voice Quality Enhancer
Voice Compression
ADPCM Transcoder
DCME 20:1 Voice Compression
A.bis / A.ter Optimizer

Security Products

Video Surveillance
Digital Audio Recorder
Digital Data & Audio Recorder
DCME Interceptor
A.bis Interceptor
KVM (Keyboard Video Monitor)
Data Logger with SS7
NMS Protocol Converter

Research and Development

Protocol Conversion
Operator Intercom
IF Signal Analysis
DCME Interceptor
Radar Data Acquisition & Analysis
Software Defined Radio

Wide Band Digital Recorder - WBDR

WBDR (Model No. ICS-WBDR-01) is intended to perform Recording and Replay of the intercepted signal at 70MHz IF with maximum bandwidth of 40MHz. WBDR system is realized in VME based modules suitable for packaging in 4U, 19" rack mountable chassis. System is controlled through the Gigabit Ethernet LAN. WBDR is designed with One 70 MHz IF channel (With IF In and IF Out) & one 10 Gigabit Ethernet for time stamping and indexing. Channel Bandwidths for record / replay are variable in ranges from: 40, 20, 10, 5, 2.5, 1.25 and 0.625 MHz, selectable.

Digital Audio Recorder - DAR

Digital Audio Recorder (DAR) is a state of the art solid-state recording and replaying multi-channel system to record / replay audio and voice-band data signals for surveillance purposes. The input to the system can be from telephone lines, radio receivers, mike or microphones. The input signal is digitized and stored in the hard disk / CD ROM of the system where DAR is installed, for later replay / transmission.

Digital Data & Audio Recorder - DDAR

The Twelve Channel Digital Data and Audio Recorder (DDAR - Model No: ICS-DDAR-12C-3UR) is used to record the analog audio inputs from four monitoring receivers and four operator mikes connected at OPICOM (these eight will be extended to the DDAR), data input from two Ethernet LANs and two RS-232 Ports. Four operators from four Controlller posts will control the DDAR via LAN. The digitized audio signals or Ethernet data or RS-232 data are stored as separate audio and data files on the hard disk. It uses inbuilt hard disk as a primary medium for record and replay.

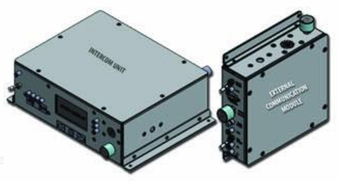
Narrow Band Signal Analysis

The Analysis and Recording Module, Model No. ICS-ARM-01 is a one stop solution for Narrow Band Communication Signal Analysis. In addition to the analysis of Communication Signals at IF/AF level, the enhanced features of ARM lie in its capability to recognize, demodulate and decoding of variety of digital communication signals to assist the gathering of communication intelligence from unknown, non-cooperative transmitters/emitters. Recording/Replay of Signals at IF/AF level with time stamping and annotation proves the ARM Operator-friendly and finds wider range of usage in military and paramilitary applications.

FDM Signal Analyzer

FDM Signal Analyzer, Model No. : ICS_FDMSA_PCI, is a DSP based PC add-on card to display the IF/FDM Base Band Spectrum on a PC monitor. It aids the operator in determining the FDM signal occupancy and accordingly program the FDM de-multiplexer in the Demux post. It consists of an indigenously developed PC add-on card that can be housed in a commercial-grade/industrial grade PC. This add-on card can be plugged into PCI slot of the PC motherboard. This card will be built around a Digital Signal Processor and consists of an Analog to Digital Converter (ADC), Digital Down Converter (DDC), PCI interference and associated circuitry.

Operator Intercom



Operator Intercom unit provides the selection and switching between communication links VHF, HF & ECM and working as an audio amplifier for voice transmission & reception. This interfacing unit also provides the audio recording & replay using peripheral recorder. Maximum two operators can operate the system. Two operators can communicate to each other using operator amplifier or also to the radio sets (VHF, HF) through INTERCOM unit. Every conversation can be heard from loudspeaker of INTERCOM unit. The operators have option to interface with VHF, HF, ECM and SMART one at a time based on the selection from the LCD selection keys and manual switch. Any particular link can be shared by any one of the operators. The outputs from the INTERCOM are sent as inputs to the links.

DCME Interceptor

A single solution for both DCME identification / classification and decompression. DCME Interceptor is an unique in offering the most compact, fully featured DCME Interception. The DCME Interceptor design and implementation is the result of extensive experience in advanced hardware design, statistical voice analysis, voice compression, fax modulation/demodulation, data packetization, traffic-congestion handling and error Management.

A.bis Interceptor

A.bis Interceptor is unique in offering the most compact, fully featured A.bis Interception.
The A.bis Interceptor design and implementation is the result of extensive experience in advanced hardware design, statistical voice analysis, voice compression, fax modulation/demodulation, data packetization, traffic-congestion handling and error Management.

Software Defined Radio - SDR

ICS has designed several modules of Software Defined Radio (SDR) for using in mobile and tactical communication system for many Commutation Industries.
The SDR is gaining importance as software which is a defined radio. ICS executed a number of projects for electronic warfare applications using SDR module. The SDR is capable of performing the following. Programmable generation of different modulated signals (AM, FM, ASK, FSK, PSK) using different modulating signals (Voice, Noise, Fax, Data), Automatic recognition of modulation type and modulating signals for the incoming signal and Automatic identification of different modem standards for the incoming voice-band signals.

Ringer Cards

ICS is a reliable name in the domain of manufacturing Ringer Cards. The Ringer Card is a Micro Controller based unit that provides dial tone, busy tone, ring and ring back tones. In many of the Telephone exchanges, the ringer unit is inbuilt and a separate ringer is not available to cater the needs for the Leased/dialing circuits. In order to meet such requirements, ICS provides Ringer Cards installed in the exchanges. There are two variants, 30 WATT RINGER (ERC-30) and 70 WATT RINGER (ERC-70)

Electronic Relay Sets

ICS is one name which is renowned for the manufacturing of Electronic Relay Sets. The ERSs are used for communicating between two subscribers as a hot line connectivity and the communication link can be a dedicated line / carrier channel. The ERSs are available in a various range. There are two variants, Electronic Relay Sets (Hotline) (ERS I & II) and Electronic Long Distance Relay Sets (ERS V & VI)

Keyboard Video Monitor (KVM)

Designed to provide users with friendly and clear visual monitoring device that can be easily fitted in a standard 19" rack.
It supports bright active matrix TFT LCD display in an elegantly designed heavy duty housing. It allows wide viewing angle and excellent display quality is supported by a maximum contrast ratio of 700:1 and a resolution up to 1024(H) /768(V) pixels for 15" LCD versions. It can be connected easily to a computer through standard VGA interface.

Versatile Multiplexer

Versatile MUX is a versatile multiplexing equipment packed with all the advanced features required of a time division multiplexing equipment to be employed in a multi-service leased line access network. It paves the path towards the development of a fully managed leased line network by providing efficient and robust network management capabilities. ICS.VM 30 Drop Insert Multiplexer is a state of the art solution multiplexer technology to meet modern network communication requirements. The equipment operates at a primary rate of 2048 kbps and can provide service to 30 voice / data channels.

Teleprinter Mux Interface System

The TMS-64 can be used for transporting the information in a 64 Kb/s channel from the source exchange to destination exchange through the existing conventional PCM stream. It consists of processor-based hardware, which will ensure reliability and quality of service. The system takes asynchronous serial data of different speeds from teleprinter with suitable hardware interface and gives out the data at 64 Kb/s speed with co-directional interface as per G703. At the other end, the same asynchronous serial data can be extracted from the receive signal at 64 Kbps.

Voice Quality Enhancer

Voice Quality Enhancer affords better reliability and good Voice Quality services during a long distance call and supports Operators to secure existing customers by offering good speech quality, unwanted noise eduction, echo cancellation etc. Key benefits of VQE are Supports 128EI per 2U sub-rack/shelf, Bidirection Noise cancellation, Bidirection Level Control, Bidirection Hybrid Echo cancellation, Bidirection Acoustic Echo ancellation, Full redundant Solution through Metallic bypass relays for each EI, Optional Card Redundant etc.

ADPCM Transcoder

The 60 Channel ADPCM Transcoder is a Voice Compression Equipment and a state of the art solution for enhancing network connectivity in an extremely cost effective manner. A 60 Channel ADPCM Transcoder combines two conventional 2 Mbps PCM EI trunks into a single EI trunk catering for 60 channels by adapting ADPCM coding. The Transcoder accepts two 2 Mbps streams, termed as A&B, where voice channels are coded following A-law using 64 Kbps per channel and to convert these voice channels into one 60 channel ADPCM stream, termed as C, using 32 Kbps per channel. The reverse function of converting C stream into A&B streams is also achieved. There are 2 variants, 60 Channel ADPCM Transcoder - 6U and 60 Channel ADPCM Transcoder - 1U

DCME 20:1 Voice Compression

The core features of DCME 20:1 Voice compression equipment are as follows.
Up to 620 DS0 Channels compression, Support Dual mode bearer: TDM and IP, Support – Voice, Fax and data, Intelligent Compression in Tandem Application, Significant scalability - minimum up-front investment, Increased revenue through improved network utilization, Increased network capacity at minimum incremental cost, Simplicity and speed of deployment, High reliability, Ease of management, Quick ROI and Breaking of price-performance barriers.

A.bis / A.ter Optimizer

The core features of A.bis/A.ter Optimizer are as follows.
Abis Optimization up to 2:1, Maximum bandwidth utilization, Significant scalability - minimum up-front investment, Increased revenue through improved network utilization, Increased network capacity at minimum incremental cost, Simplicity and speed of deployment, High reliability, Ease of management, Quick ROI, Breaking of price-performance barriers etc

Video Surveillance

ICS offers Analog and Digital cameras, to provide video surveillance systems for industrial, educational and corporate segments. Network video solutions enable you to remotely and cost-effectively monitor and secure people, property and industrial processes. You can use them to conduct remote education or troubleshooting, or to broadcast sites and sounds over the Internet. Your network video system can be as simple or as sophisticated as you want it to be. Different ranges of products are CCTV cameras, IP Cameras, Fixed/PTZ, Dome Cameras, Digital Video Recorders and Network Video Servers.

NMS Protocol Converter

NMS Protocol Converter is a Serial-LAN Firmware Device to convert the Serial Data into LAN Data. NMSPC application software sends commands as bytes through RS232 interface to the Serial-LAN Firmware Device. Protocol maintained in the algorithm interprets the incoming bytes and decides that to which device the commands meant for. Microcontroller directs to the specified device through Ethernet LAN (via Ethernet switch) after converting in to Simple Network Management Protocol packet. It receives the response from the device and converts in to serial data to send to the Network Management System. The hosting application of the client needs to take data on serial from IP devices working on SNMP. To support such a communication there is a requirement of two softwares from ICS namely Serial to LAN Converter residing in Microcontroller and UDP to Serial Converting software application residing in PC.

SIP Stack for SIP Client

SSSC is a protocol stack or APIs developed for BREW supported CDMA mobiles sets to establish an end to end communication.
SSSC will generate the event when it receives the response message from the SIP server/UAS, SSSC the process the response message and generate the event to notify the main module takes corresponding action based on the event type.

Data Logger SS7

ICS offers a passive 16 duplex EI (32 simplex EI ports) interception system for automatic collection, analysis, recording and storage of traffic (voice, fax or modem data) and signaling information contained in all timeslots. The acquisition and storage capacity is not restricted to the estimated 75% traffic load as it may be higher. The system uses industry standard, 19" rack mounted, hardware probes and Multi-CPU/Multi-core Server platforms with Proven Operating Systems for acquisition, analysis and RDBMS.

Satcom QPSK Modem

Satcom QPSK Modem (Model No:ICS-SATCOM-DQMODEM-1109) receives data/digitized voice through RS422, encodes, modulates, up converts it to 70MHz IF and sends it through Radio. The received modulated signal at 70MHz IF is down converted, demodulated, decoded and sent through RS422 to the controller.

Quality Policy of ICS

Innovation
Communications
Systems Ltd., is committed
to continual improvement of
processes to deliver Quality Products
and Services in the emerging areas of Information
and Communication Technologies. Everyone at ICS will
adapt, nurture and uphold the quality policies of the organization.

Quality STD Followed

DO 178
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JSS 55555
IEEE 12207
IV & V COMPLIANCE
MIL STD 461E, 810 D/E

Software Services

- Customized Software Services
- RTOS Application Development
- Windows / Linux Application Development
- Mobile Application Development
- Web Application Development
- Device Driver Development

Design - Development Services

- Technique Counter Modulation Generator
- DSP/FPGA Embedded Systems/SDR Modules
- Ruggedized PC based Solutions
- Atmospheric Radar Data Acquisition
- Narrow and Wide Band Signal Analyzer

OUR CLIENTELE

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