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Defence Products

- Wide Band Digital Recorder
- Digital Audio & Data Recorder
- Narrow Band Signal Analyzer
- FDM Signal Analyzer
- Operator Intercom
- SATCOM QPSK Modem
- SIP Stack for SIP Client
- Software Defined Radio
- VOIP Recorder
- Spectrum Processor
- KVM (Keyboard Video Monitor)



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.

Telecom Products

- Ringer Cards
- Electronic Relay Sets
- 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



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.

Security Products

- Video Surveillance
- Digital Data & Audio Recorder
- NMS Protocol Converter



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.



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.

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:I 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.

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 reduction, 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 cancellation, 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.



A.bis / A.ter Optimizer



The core features of A.bis/A.ter Optimizer are as follows. Abis Optimization up to 2:I, 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.



Acoustic Emission Nodal Unit

The AENU is an Acoustic Emission Sensor Network System with 16 nodes communicating with a Cluster Server wirelessly. The AES nodes acquire acoustic data, compute derived parameters and transmit them using Zigbee wireless technology to the Zigbee-WiFi Converter. There are facilities to vary threshold based on the environment placed, vary the Hit Definition Time, give each node a different address, start / Initialize the 32 – bit counter, re-program the device's present for various functionalities.

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. The Data and Symbol rates are 2.88 Kbps(voice), 19.2 Kbps(Data).



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.

Software Services

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

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

Design & Development Services



Quality STD Followed

DO 178
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JSS 55555
IEEE 12207
IV & V COMPLIANCE
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OUR CLIENTELE



OUR EXPORTS



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