



प्रसारभारती / PRASAR BHARATI
भारतीयलोकसेवाप्रसारक/ INDIA'S PUBLIC SERVICE BROADCASTER
अपरमहानिदेशक(अभि.) (द.क्षे) काकार्यालय/ O/o. ADDL. DIRECTOR GENERAL (E)(SZ)
आकाशवाणीएवंदूरदर्शन / ALL INDIA RADIO & DOORDARSHAN
स्वामीशिवानंदासालै, चेन्नई / SWAMY SIVANANDA SALAI, CHENNAI - 600 005

No. ADG(E)(SZ)/SMT/IEBR/METP/26-27

Date: 04.05.2026

Sir/Madam,

Sub: Request for Budgetary Quotation for Supply of Spares for **NX 200 & NX100 Nautel DRM Transmitter for the attached specification.**

Sl. No.	Particulars	Qty.
1.	Content Server	1 No
2.	Audio Patch Panel	1 No
3.	Modulator	1 No

1) GUARANTEE / WARRANTEE:

One year from the date of supply of material.

2) Payment terms :100% payment on testing of item.

Quotations may be addressed to : Shri.V.Dinesh kumar , Deputy Director(E), Room No 209, O/o Additional Director General(E), Akashvani & DD, Swamy Sivananda Salai, Chennai - 600005.

and by email to : diravm_sz@yahoo.com & airmaintenance.sz@prasarbharati.gov.in

Yours faithfully

V.Dinesh kumar
Deputy Director (E)
For ADG(BO-SZ)

AUDIO PANEL

APPLICATIONS

Professional Audio Patch panel with XLR inputs for analog and digital audio and USB output, Multiple digital or analog audio input for all DIGIDIA head end products: the Flexi DAB DAB/DAB+/DMB multiplexer and encoder, the Easy DAB DAB test multiplexer/ EDI generator the ALTO DRM content server or the Span FM Synchronous FM head end system

KEY BENEFITS

Field proven, used with DIGIDIA systems in many countries all over the world

15 years of sales record

Adapted for 1+1 redundant systems

Synchronization between audio panel and head end products

100% inhouse development

Easy configuration with user friendly GUIs

TECHNICAL SPECIFICATIONS

INPUTS/OUTPUTS

Analog Inputs: Female XLR Connectors – 600Ω balanced

Digital Inputs: Female XLR Connectors – 110Ω balanced

Synchronization input: BNC 50Ω connector – 48kHz frequency

Multiplex output: USB 2.0 certified compliant, Highspeed USB interface (480Mbs)

MECHANICAL

Dimensions and weight:

1RU: 483 (19") x 450 x 44 mm; 5kg, rackable

Temperature Range:

Operating: 0°C to 50°C

Temperature Range:

Operating: 0°C to 50°C

Storage: -20°C to 70°C Humidity: 10% to 90% at 50°C

ELECTRICAL

AC Input: 110-240V, 50/60Hz

Power consumption: <20W

FEATURES

Compact 1RU 19" mechanical frame

Up to 4 analog or digital stereo audio inputs (4 analog left+ 4 analog right+ 4 digital AES/ EBU XLR connectors, in total 12 XLR connectors all on the front.

Automatic Sample Rate Converter for each digital AES/EBU input (48 kHz output sample frequency with typically -117dB THD+N)

High performance analog to digital Converter for each analog input (typically -90dB THD+N)

Secured connection with professional XLR connectors and disconnection proof USB connector.

ALTO CONTENT SERVER

APPLICATIONS

- DRM broadcasting (DRM30 and DRM+)
- DRM head end in studios or directly on the transmitter site
- DRM test transmission in trials or laboratories

KEYBENEFITS

- Field Proven: Used in India - the world's biggest DRM roll out with Nautel MW transmitters
- Extremely portable solution on different industrial PC platforms (1RU,2RU, 4RU, Cube)
- Flexible and compact all in one box solution: Multi-encoding and multi-multiplexing for DRM30 and DRM+
- Easy to use thanks to user friendly GUI
- Seamless 1+1 redundancy

I. TECHNICAL SPECIFICATIONS

INPUTS/OUTPUTS

With internal audio PCI board (hardware option): Up to 2 either

- Digital Audio (48kHz)/MPX (192kHz) input on XLR connectors or
- Analog Audio input on XLR connector

With external audio panel (hardware option) 4 x Digital (balanced, 110Ω) or 4x Analog (balanced, 600Ω) Audio input on female XLR input

- GPS antenna Input for integrated NTP Server (optional)
- Audio over IP input: AES67, MP3 over Icecast or MPEG TS, Livewire, and others on demand
- MDI output(s) compliant with TS102 820 and TS 102 821 on Ethernet 10/100 Base T – RJ45 connector
- IP Input for data services with interfaces to different playout systems

ELECTRICAL

- AC Input: 110-240 V, 50/60 Hz

MECHANICAL

Temperature Range:

- Operating: 0°C to 50°C
- Storage: -20°C to 70°C

Humidity: 10% to 90% at 50°C

II. TECHNICAL SPECIFICATIONS

FEATURES

- DRM content server compliant with ES 201 980 Different Industrial PC platforms on Windows OS available: 4RU, 2RU, 1 RU or Mini-PC. Dual Auto-range Power Supply RAID, 1 Hard Disk Redundant System (for 2RU and 4RU platform only)
- Can be completely virtualized FAC, SDC and MSC Management
- All A,B,C and D modes for DRM30, E mode for DRM+
- MFN and SFN operation (NTP client included)
- DRM 4.5/5/9/10/18 and 20kHz channel bandwidths for DRM30, 100kHz channel bandwidth for DRM+
- All standard QAM modes (MSC 64 or 16 and SDC 16 or 4)
- Hierarchical symmetrical / Hierarchical mixed constellations and mapping
- Short and long interleaving process (0.4s and 2 s)
- Equal and unequal protection (EEP/UEP) coding rates from 1/4 to 8/9
- Dynamic Reconfiguration supported

AUDIO ENCODER SOFTWARE OPTIONS

- HE AAC v2 encoder (mono, stereo or parametric stereo) with SBR
- xHE AAC audio encoders on demand
- All audio encoders are delivered with DRM Text Message Feature and 8/12/16/24 kHz sample rates

DATA ENCODER SOFTWARE OPTIONS (PAD AND NPAD)

- News Service Journaline
- Broadcast Website
- Slide Show
- Electronic Program Guide
- TPEG
- Pull Data clients for text and pictures: HTTP, FTP, JASON
- FTP Server for data pus
- PRBS pattern for testing

1+1 Redundancy

Unicode/UTF-8 Support for all international characters for DRM Text Messages,Journaline and DRM service labels

OTHER SOFTWARE OPTIONS

- Announcement Support and Switching: EWF (Emergency Warning Feature) and Travel, News, Weather
- Service Following and Switching
- Automatic Schedule

CONTROL AND MONITORING

- Remote control through a web server with user friendly GUI

SNMP Monitoring (MIB V2)

ORDERING INFORMATION

PC PLATFORMS

OPT-IPC1RU	1RU Industrial PC Platform
OPT-IPC2RU	2RU Industrial PC Platform
OPT-IPC4RU	4RU Industrial PC Platform

ORDERING INFORMATION

HW OPTIONS

OPT-DUAL AUDIO	Internal Audio Board for up to 2 either digital audio or digital MPX or analog audio inputs
OPT-PANEL	Audio Panel (external 1RU hardware option, up to four analog or digital audio inputs)
OPT-GPSRX	PCIe board with GPS module and NTP server

SW OPTIONS

DRM-MUX	Atlo Content Server software for DRM30 and DRM+, includes 1 HE AAC encoder and 4 Journaline Applications
OPT-DRM-xHE AAC DRM+	xHE AAC audio encoder and text message inserter for DRM+ (up to 4)
OPT-DRM-XHE AAC	DRM30xHEAAC audio encoder and text message inserter for DRM30 (up to 4)
OPT- DRM-SLS-DATA	SLS Data Option (per application, up to 4)
OPT- DRM-AOIP	Audio over IP input (per input)
OPT- DRM-BWS DATA	BWS MOT Data inserter (per application)
OPT- DRM-EPG DATA	EPG MOT Data inserter
~OPT- DRM -TPEG DATA	TPEG MOT Data inserter
OPT- DRM-ANNOUNC	Announcement Support and Switching (including EWS, one per DRM multiplex)
OPT- DRM-SFL	Service Following an Linking (one per DRM multiplex)

SOPRANO MODULATOR

APPLICATIONS

DRM30 broadcasting in frequencies less than 30MHz
Integration in LW, MW or SW transmitter
DRM Test transmission in trials or laboratories

KEY BENEFITS

Seamless Integration to LW, MW or SW transmitter
DRM30 Modulator
Double Power Supply as an option

TECHNICAL SPECIFICATIONS

INPUTS/OUTPUT

1 x MDI Input for DRM30 compliant
with TS102820 and TS102821
1 x GPS Aerial Input on 50Ω TNC connector
2 x 10/100 Base-T Ethernet port on
RJ45 connector
1 x Digital 48kHz I/Q output on
1 XLR connector (600Ω balanced)

ELECTRICAL

AC Input: 110-240V, 50/60Hz
Power consumption: < 20W Option: Double Power Supply

CONTROL AND MONITORING

Remote control through a web server with HTTP interface
SNMP Monitoring (MIBV2)

MECHANICAL

Dimensions and weight: 1RU: 483x250x44mm; 4kg
Temperature Range: Operating: 0°C to 50°C
Storage: -20°C to 70°C
Humidity: 10% to 80% at 50°C

TECHNICAL SPECIFICATION

FEATURES

DRM30 modulator/exciter compliant with ES 201 980

MFN and SFN operations

Integrated GPS receiver with NTP server

FAC, SDC and MSC Management

All A, B, C and D modes

All standard QAM modes (MSC 64 or 16 and SDC 16 or 4)

Hierarchical symmetrical / Hierarchical mixed constellations and mapping

Short and long interleaving process

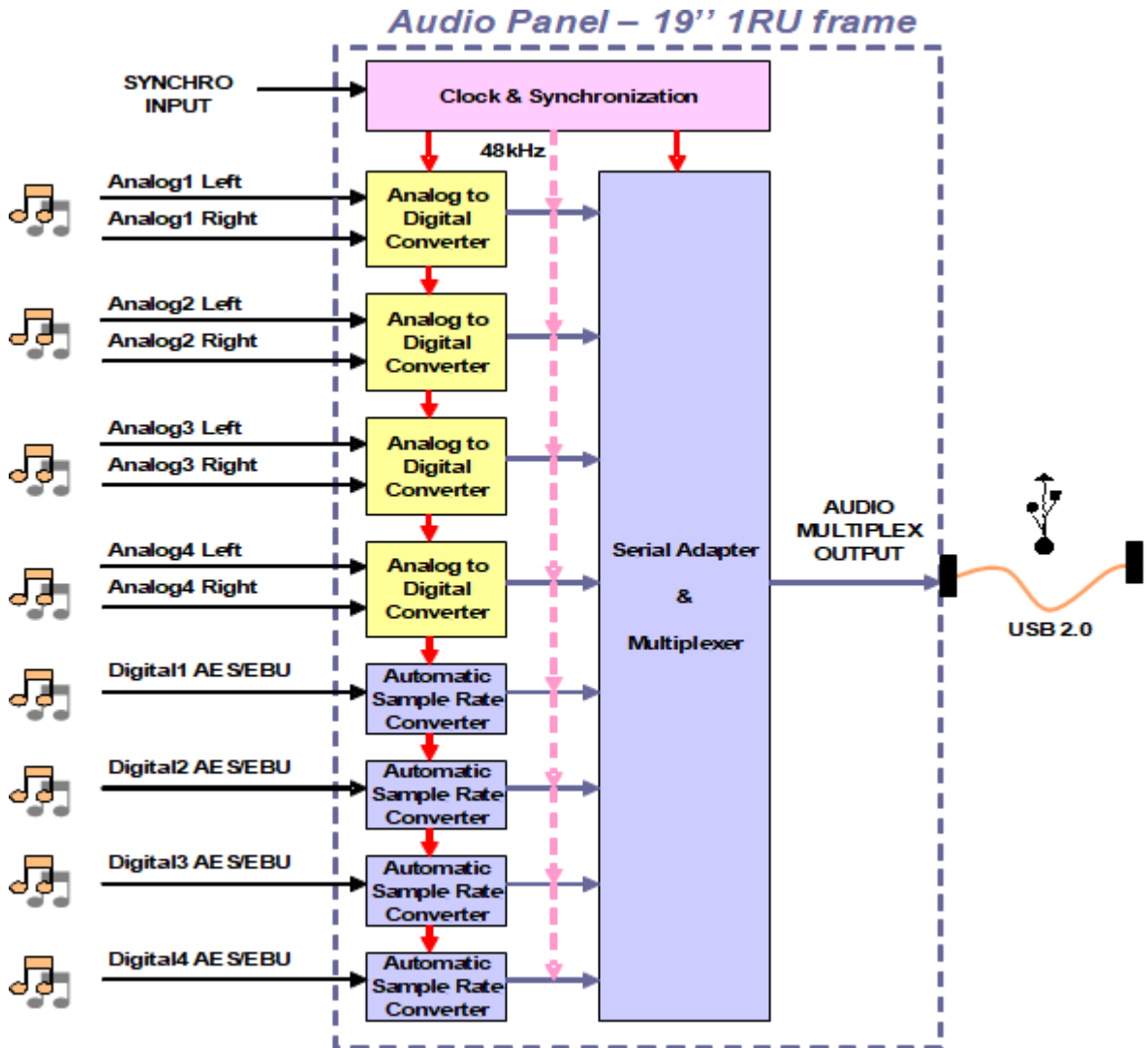
DRM 4.5/5/9/10/18 and 20kHz channel bandwidths

From 1/4 to 8/9 – Equal / Unequal coding rate (EEP/UEP)

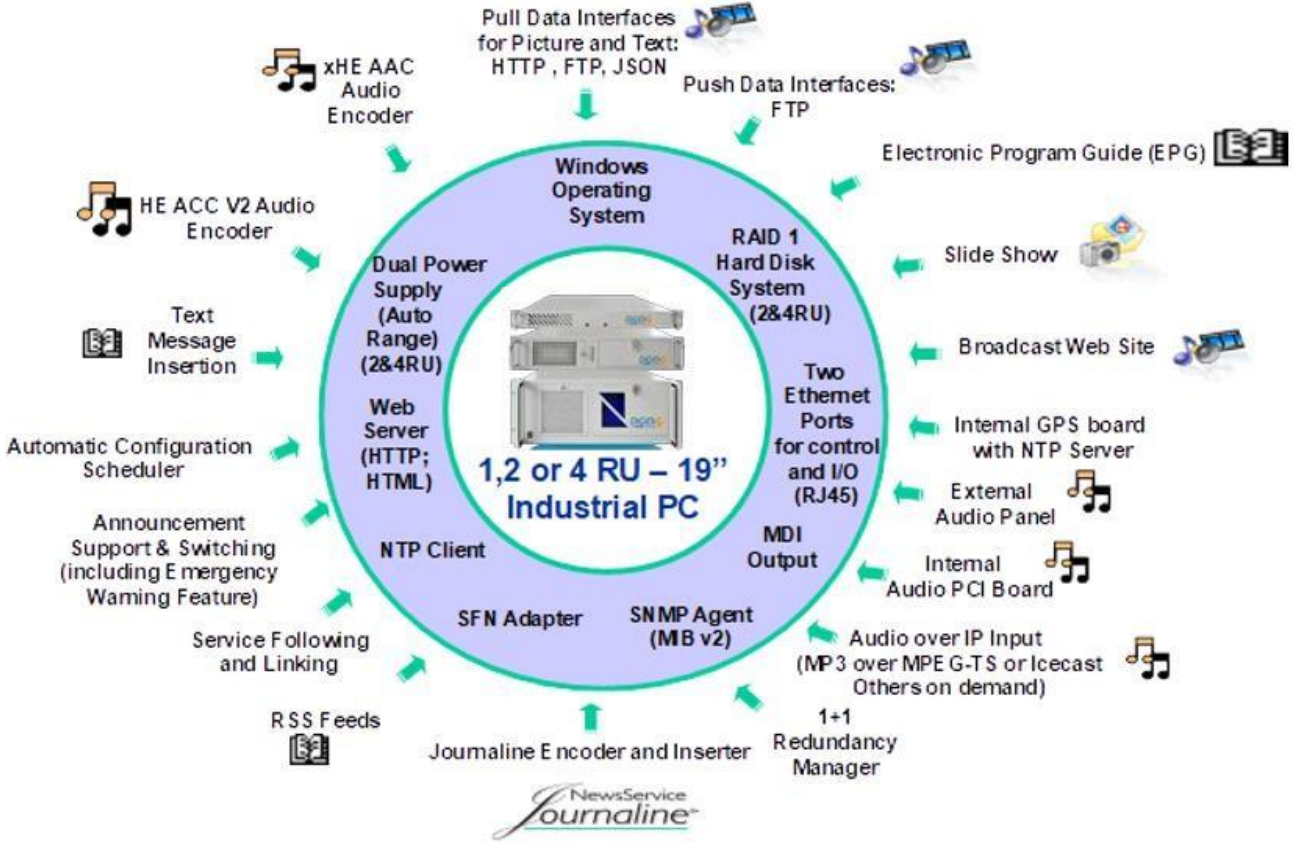
Dynamic Reconfiguration Support

DRM30-MODIQ	DRM30 modulator with IQ output
OPT-DualPS	Optional second back up power supply working in parallel with the main power supply

BLOCK DIAGRAM



CREATE YOUR OWN DRM MULTIPLEXING SYSTEM



BLOCK DIAGRAM

