



COMPARATIVE TABLE



ENERGYA



PARADIGM



SOUNDCRAFT RM 1D (6 Fader version)

SPECIFICATION	ENERGYA	PARADIGM	SOUNDCRAFT RM 1D (6 Fader version)
Audio Inputs	24 Input channel <ul style="list-style-type: none"> 4 Mic Input transformer balanced 4 AES/EBU Digital input with SRC up to 96 KHz 16 Line input electronically balanced 	24 Input channel <ul style="list-style-type: none"> 4 Mic Input 4 AES/EBU Digital input with SRC up to 48 KHz 16 Line input electronically balanced 	12 Input channel <ul style="list-style-type: none"> 4 Mic/Line Input 4 AES/EBU Digital input with SRC up to 48 KHz 4 Line input electronically balanced TDIF (IN/OUT) for 8 track machines
Faders	8 faders (100 mm) and A/B selection	8 faders (100 mm) and A/B selection Expansible to 16 and 48 faders	6 faders (100 mm) and A/B selection Expansible to 12 and 18 faders
Input assignment	Each input can be routed on any faders (digital router)	Fixed: <ul style="list-style-type: none"> 4 Input channel: Mic/Line 2 Hex input channel: 5 Analog/ 1 AES/EBU 2 input channels: analog/digital 	Each input can be routed on any faders (digital router)
A/D converter on analog input	High quality 24 bit A/D converter	High quality 20 bit A/D converter	High quality 24 bit A/D converter
Input/channel functions	INPUT FUNCTIONS (All settings are linked together each input source; when you assign an input source to the relative channel, all the setting parameters are routed to the input channel including Start-Stop functions) <ul style="list-style-type: none"> Name assignment to each input Source Selection Level Adjustment Phantom Power (Mic input only) Insert (Mic input only) Dynamics (Mic input only) 3 Band Parametric EQ.(with Save Recall Functions) SRC By-Pass (Digital input only) AES failure state/ mute input on failure (Dig.inp.only) Phase Reverse PAN/BAL Busses Assignment Mode Selector (Mono, Stereo, Left, Right) Control Room – Studio Mute Timer Restart Tally 1 – 2 Logic with Blink Option 16 Logic control for START- STOP functions Fader Reference 0 or + 10 dB selectable Intercom Telco private function 	CHANNEL FUNCTIONS <ul style="list-style-type: none"> Name assignment to each input Level Adjustment Phantom Power (Mic input only) Insert (Mic input only) Dynamics (Mic input only) 3 Band EQ. (MID. Parametric) SRC By-Pass (Digital input only) AES failure state/ mute input on failure (Digital input only) Phase Reverse PAN/BAL Mode Selector (Mono, Stereo, Left, Right) PARADIGM provides interface screens for GP, Routing and Logic Controls setting.	CHANNEL FUNCTIONS <ul style="list-style-type: none"> Name assignment to each input Source Selection Level Adjustment Phantom Power (Mic input only) Insert (2 Mic input only) Lexicon Digital effect processor 3 Band EQ. (MID. Parametric) Phase Reverse Mode Selector (Mono, Stereo) PAN/BAL Busses Assignment Control Room – Studio Mute Timer Restart Logic control for STAR-STOP functions
Outputs	<ul style="list-style-type: none"> PGM Digital with select. sample rate (up to 96 Khz) UTL Digital with select. sample rate (up to 96 Khz) 2/3 x TELCO Digital 48 Khz (Clean Feed) 2 x PGM Stereo Analog (24 bit D/A) 1 x UTL Stereo Analog (24 bit D/A) 2/4 x TELCO Mono Analog (24 bit D/A) – Clean Feed MONO Analog (24 bit D/A) CONTROL ROOM: Stereo Analog (24 bit D/A) CONTROL STUDIO: Stereo Analog (24 bit D/A) Talk Back 	<ul style="list-style-type: none"> PGM Digital AUX Digital PGM Stereo Analog (20 bit D/A) AUX Stereo Analog (20 bit D/A) 2 x TELCO Mono Analog (20 bit D/A) MONITOR: Stereo Analog (20 bit D/A) STUDIO MONITOR: Stereo Analog (20 bit D/A) 	<ul style="list-style-type: none"> 2 AES/EBU digital outputs with selectable sample rate (up to 48 Khz) 1 S/PDIF digital output 2 Stereo Outputs analog (24 bit D/A) 4 CLEAN FEED: Mono Analog (24 bit D/A) 2 AUX: Mono Analog (24 bit D/A) CONTROL ROOM: Stereo Analog (24 bit D/A) CONTROL STUDIO: Stereo Analog (24 bit D/A) PFL: Stereo Analog (24 bit D/A)
External Control	<ul style="list-style-type: none"> RS 232 Interface Network Interface TCP/IP control Remote Fader with Logic controls, (TB, On VGA output Synchronization: Master/Slave with AES/EBU clock in/out Word Clock 16 GP inputs 16 GP outputs 2 x ON AIR Tally 	<ul style="list-style-type: none"> RS 422 Interface Synchronization: Master/Slave with AES/EBU clock in/out Time SYNC (GPI Pulse) 16 GP inputs 16 GP outputs 	<ul style="list-style-type: none"> RS 232 Interface Synchronization: Master/Slave with AES/EBU clock in/out Word Clock 12 GP outputs 4 GP input TalkBack MIDI in/out Logic controls (TB, Cough)
Monitoring	<ul style="list-style-type: none"> Level Control for Headphones, Control Room, Control Studio and CUE speaker Pre/Post Fader Function un CUE 2 x External Input for Monitor, Headphone and CUE speaker Headphone amplifier integrated Cue speaker and amplifier integrated Cue interlock function Level Meter on TFT colour monitor (Energya-LCD mod) 	<ul style="list-style-type: none"> Level Control for Headphones, Monitor and CUE speaker External Input for Monitor and Headphone Headphone amplifier integrated Cue speaker integrated Level Meter integrated 	<ul style="list-style-type: none"> Level Control for Headphones, Control Room, Control Studio and CUE speaker 4 x External Input for Monitor and Headphone Headphone amplifier integrated Cue speaker and amplifier integrated Level Meter integrated
Display	VGA output	Monochrome display	2 x 12 alphanumeric LCD
General Functions	<ul style="list-style-type: none"> Integrated Talk-Back Mic Watch/stopwatch - Timer Password Security Jog reel and keypad for fast configuration and menu surfing 4 programmable "Hot Keys" Internal Power supply User Preset 	<ul style="list-style-type: none"> Integrated Talk-Back Mic Watch/stopwatch 8 User Preset with 3 modes each Service port for external system check Optional profanity delay Optional redundant power supply 	<ul style="list-style-type: none"> Reverse Talk-Back Mic Input Watch/stopwatch 128 desk preset Parameter Encoder (keypad)



ENERCUYA

Technical Specification Preliminary

INPUT / OUTPUT SPECIFICATIONS

MICROPHONE INPUT
 Input configuration
 Input Impedance
 Input Level Range
 Maximum Input Level
 Phantom Supply
 Connector

Transformer balanced
 200 Ω
 Adjustable from -70 + -40 dBu
 -30 dBu
 42 Vdc selectable, with 3k3 c.c. protection
 XLR-type, Female, EMI suppressed
 Pin 1 Ground
 Pin 2 & 3 transformer balanced, floating and symmetrical

MICROPHONE INSERT
 Insert Output configuration
 Insert Output Impedance
 Insert Output level
 Insert Input configuration
 Insert Input Impedance
 Insert Input level

Unbalanced
 100 Ω
 0 dBu (range ± 12 dB)
 Unbalanced
 10 KΩ
 0 dBu (range ± 12 dB)

LINE INPUT

Input configuration
 Input Impedance
 Input Level
 Headroom
 Connector

Electronically balanced
 $\geq 10\text{K}\Omega$ (600Ω wired selectable)
 0 dBu (range ± 12 dB)
 + 8 dBu
 DSUB 9 pole female

EXTERNAL INPUT

Input configuration
 Input Impedance
 Input Level
 Headroom
 Connector

Electronically balanced
 $\geq 10\text{K}\Omega$ (600Ω wired selectable)
 0 dBu (range ± 12 dB)
 + 8 dBu
 DSUB 9 pole female

OUTPUT ANALOG

Output configuration
 Output Impedance
 Output Level
 Connector

Electronically balanced
 100 Ω
 0 dBu (range 0 + +12 dBu)
 DSUB 15 pole female

DIGITAL INPUT

Input configuration
 Input Impedance
 Input Sample rate
 Connector

Professional Balanced AES EBU standard
 110 Ω shielded twisted pair
 32, 44, 1, 48, 96 KHz Selectable
 DSUB 9 pole female

DIGITAL OUTPUT

Output configuration
 Output Impedance
 Output Sample rate
 Connector

Professional Balanced AES EBU standard
 110 Ω shielded twisted pair
 32, 44, 1, 48, 96 KHz Selectable **
 DSUB 9 pole female
 ** Telco 1 & Telco 2 sample rate 48 KHz ONLY, no sync.

SYNCRONIZATIONS

Frame:
 Input / Output configuration
 Input / Output Impedance
 Connector

Professional Balanced AES EBU standard
 110 Ω shielded twisted pair
 DSUB 9 pole female

Word Clock

Input / Output configuration
 Input Impedance
 Output Impedance
 Connector

Professional Balanced AES EBU standard
 10 KΩ
 100 Ω
 BNC grounded

LOGIC INPUT

Configuration
 Max Voltage Input
 Max Current Input
 Connector

Optic-coupled (with internally 330 ohm protection)
 5 Vdc
 10 mA
 DSUB 37 pole male

LOGIC OUTPUT

Configuration
 Max Voltage
 Max Current
 Connector

Optic solid state relay
 50 Vdc/ac
 100 mA
 DSUB 37 pole male



STUDIO I/O
 Studio Logic Input
 Configuration
 Max Voltage Input
 Max Current Input
 Studio Logic Output
 Configuration
 Max Voltage
 Max Current
 Connector

Optic-coupled (with internally 330 ohm protection)
 5 Vdc
 10 mA
 Optic solid state relay
 50 Vdc/ac
 100 mA
 DSUB 15 pole female

ROOM I/O
 Room Logic Output
 Configuration
 Max Voltage
 Max Current
 Connector

Optic solid state relay
 50 Vdc/ac
 100 mA
 DSUB 9 pole female

CRT
 Configuration Type
 Connector

VGA
 High density DSUB 15 pole female

RS 232
 Configuration Type
 Connector

RS232 standard DCE
 DSUB 9 pole female

LAN
 Configuration Type
 Connector

ETHERNET 10 Base T
 RJ 45

KEYBOARD & MOUSE
 Configuration Type
 Connector

Standard
 PS2

HEAD PHONES
 Configuration Type
 Input Impedance
 Output Impedance
 Connector

Stereo unbalanced
 50 Ω
 JACK 6 mm

GENERAL SPECIFICATIONS

FREQUENCY RESPONSE

Microphone Input
 to program output
 Line Input
 to program output

20 Hz + 20 KHz -0,3 dB
 20 Hz + 20 KHz -0,3 dB

NOISE

Micro Amplifier -130 dBu RMS equivalent input noise, 200 Ω source, 20 KHz bandwidth
 Line Amplifier -120 dBu RMS equivalent input noise, 600 Ω source, 20 KHz bandwidth
 Output Noise with: -80 dBu, reference + 6 dB, 200 Ω source, 20 KHz bandwidth
 one microphone channel
 ON, fader at 0 dB,
 input sensitivity at -50 dB

Output Noise with: -82 dBu, reference + 6 dB, 200 Ω source, 20 KHz bandwidth
 one line channel
 ON, fader at 0 dB,
 input sensitivity at -50 dB

Output Noise with: -88 dBu, reference + 6 dB, 20 KHz bandwidth
 no input channel ON

DISTORTION T.H.D.
 Microphone Input
 to program output

Less than 0,055 %

Line Input
 to program output

Less than 0,022 %

ASSIGN ISOLATION
 1 KHz
 20 KHz

-115 dB
 -82 dB

STEREO SEPARATION
 1 KHz
 20 KHz

-85 dB
 -78 dB

CMRR (Line Input)
 1 KHz
 20 KHz

-80 dB
 -80 dB
 -75 dB

GENERAL DATA
 Power Supply
 Power Requirement
 Operating Temperature

115 / 230 VAC 50 – 60 Hz
 60 VA
 0 + 50 °C



PROFESSIONAL BROADCAST EQUIPMENT

COMPARATIVE TABLE

ENERCUYA

DIGITAL ON AIR CONSOLE

VS.

PARADIGM / SOUNDCRAFT RM 1D (6FaderVersion)