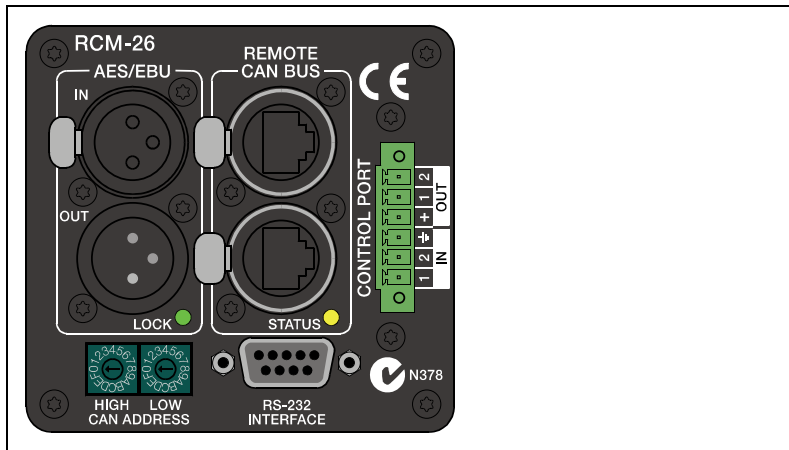




Technische Informationen
Engineering Data Sheet

RCM-26

Remote Control Module

Beschreibung

Das RCM-26 Remote Control Modul ist ein optionales Einbaumodul zur Überwachung und Fernbedienung einer Endstufe über ein Remote-Control-Netzwerk.

An einem Remote-Netzwerk können maximal 100 Endstufen angeschlossen sein. IRIS-Net kann mehrere Remote-Control-Netzwerke mit bis zu 250 Geräten verwalten. Das RCM-26 stellt neben digitaler Signalverarbeitung einen digitalen Audio-Eingang (AES/EBU), eine RS-232-Schnittstelle sowie Steuerein- und ausgänge zur Verfügung.

Weitere Eigenschaften:

- **116 dB Dynamikbereich** - für beste Audio-Performance ohne störende Nebengeräusche
- **Hohe DSP-Leistung** - Umfangreiche Signalverarbeitung mit Equalizer, Crossover, Delay, Dynamics
- **FIR Filter** - Linear Phase Filter, Zero Latency Filter, Linear Phase Brickwall Crossover
- **Lautsprecherschutz** - Peak Anticipation Limiter und TEMP (Thermal Energy Management and Protection) Limiter
- **Impedanzmessung** - von 20 Hz bis 20 kHz

Description

The RCM-26 Remote Control Module is a optional module for supervision and remote control of power amplifiers.

RCM-26 modules allow the integration of amplifiers into a remote control network with up to 100 devices. By using multiple networks within an IRIS-Net project up to 250 amplifiers can be used in total. Besides digital signal processing functions, the RCM-26 also offers a digital audio input (AES/EBU), a RS-232 port and freely programmable control inputs and control outputs.

Additional features:

- **116 dB dynamic range** - for best audio performance
- **High DSP power** - extensive signal processing including Equalizer, Crossover, Delay, Dynamics
- **FIR filter** - Linear Phase Filter, Zero Latency Filter, Linear Phase Brickwall Crossover
- **Speaker protection** - Peak Anticipation and TEMP (Thermal Energy Management and Protection) limiters
- **Impedance measurement** - testing from 20 Hz to 20 kHz

Part Number

RCM-26	Remote Control Module	F.01U.100.384
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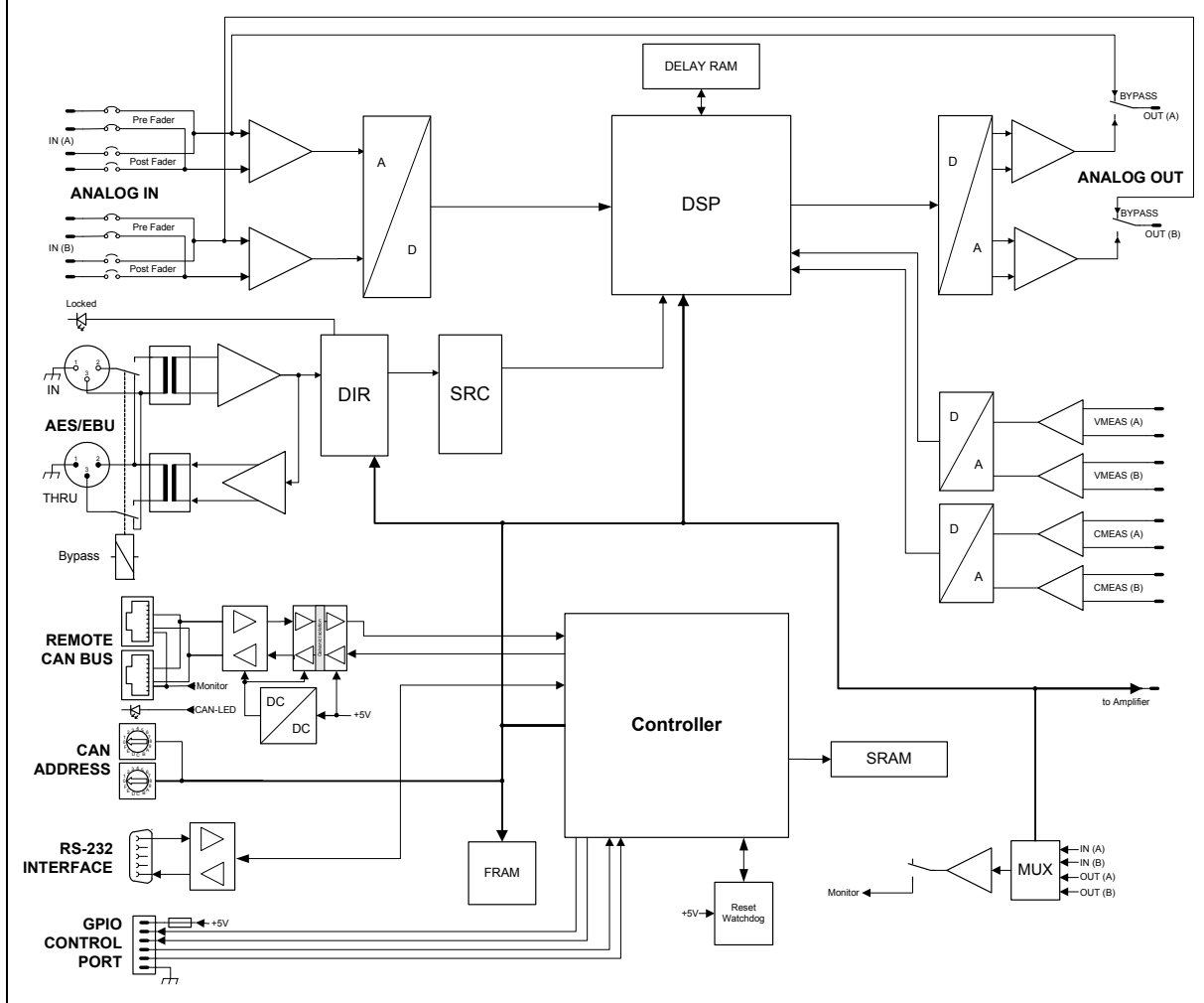
Inhalt

1 x RCM-26
1 x Bedienungsanleitung
1 x Kunden-Information
1 x Stecker 6-pol. Phoenix MC 1,5/6-STF-3,81 (F.01U.104.179)
4 x Schrauben Kombi-Torx M3x10

Contents

1 x RCM-26
1 x Owner's manual
1 x Customer Information
1 x Connector 6-pole Phoenix MC 1,5/6-STF-3,81 (F.01U.104.179)
4 x Screws Combination Torx M3x10

RCM-26 Block Diagram



Technical Specifications

NETWORK AND GENERAL FEATURES	
Remote Control and Software	IRIS-Net, Multiple PCs possible, MS Windows XP, Vista, 7
Maximum Configuration	250 Amplifiers in total, 100 Amplifiers per CAN bus, 1000 meter cable run
Supervised Amplifier Parameters	Operation mode, temperature, output voltage and current, impedance of connected speakers, protection mode status, mains voltage and current, power consumption, pilot tone detection
Network Supervision	CAN bus failures, defective or missing amplifiers, bandwidth, failure protocol and messaging
Audio Monitoring	All input and output signals
AUDIO SPECIFICATIONS	
Analog Audio Input	2 audio inputs on internal slot connector, pre-/post fader selectable
Input Level (nominal)	+6 dBu / 1.55 V
Input Level (max. before clip)	+21 dBu / 8.7 V
A/D Conversion	24 Bit linear, Sigma-Delta, 128 times oversampling
Digital Audio Input	AES3 (AES/EBU) format, XLR In/Thru connectors
Input Sample Rates	32 kHz to 192 kHz, internal Sample-Rate-Converter
Audio Output	2 audio outputs on internal slot connector
Output Level (nominal)	+6 dBu / 1.55 V

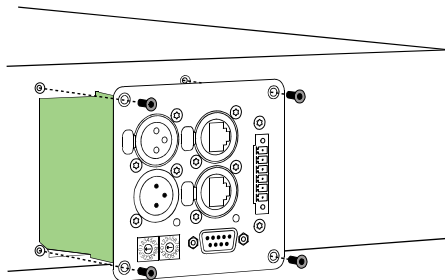
Output Level (max. before clip)	+21 dBu / 8.7 V
D/A Conversion	24 Bit, Sigma-Delta, 128 times over-sampling
Monitor Outputs	2 x RJ-45 (REMOTE), electronically symmetric (Pins 7/8)
Frequency Response	20 Hz to 40 kHz (-1.0 dB)
Signal to Noise Ratio (A-weighted)	ADC: 120 dB typical DAC: 118 dB typical AES3: 128 dB typical Analog In to Analog Out: 116 dB typical
THD+N	< 0.005 %
Signal Delay	1.031 ms @ 96 kHz
Crosstalk	< -110 dB @ 1 kHz
SIGNAL PROCESSING	
Sample Rate	96 kHz (48 kHz optional)
Data Format	24 Bit linear A/D and D/A conversion, 48 Bit processing
Signal Processing	2 DSPs (150 MHz, 300 MIPS)
Master EQ (Input)	6 filters per channel, selectable as PEQ, Lo-Shelf, Hi-Shelf, Hi-Pass and Lo-Pass
Master Delay (Input)	2 to 2000 ms per channel (units: μ s, ms, m, inches, feet, samples)
Channel EQ (Output)	6 filters per channel, selectable as PEQ, Lo-Shelf, Hi-Shelf, Hi-Pass, Lo-Pass and All-Pass
X-Over	Hi-Pass and Lo-Pass per channel, 6/12/18/24 dB Bessel/Butterworth, 12/24 dB Linkwitz-Riley
FIR Filters	Zero-Latency Processing, Linear Phase X-Over
Dynamics	Peak Anticipation Limiter and TEMP Limiter per channel
Other Functions	Input Routing, Level, Mute, Polarity, Sine and Noise Generator, Pilot Generator, Level Meters
Protection	Digital Speaker Protection
INTERFACES	
RS-232	9pin DSUB female (Multi-Media Control)
CAN	10 to 500 kbaud, 2 x RJ-45 (IRIS-Net Control)
GPIO Control Port	1 x 6-pole Euro block 2 Control Inputs 2 Control Outputs 2 Reference Outputs (+5 V, 200 mA / GND)
RCM-26 GENERAL SPECIFICATIONS	
Supply Voltage/Current	+5 V DC / 650 mA +15 V DC / 250 mA -15 V DC / 120 mA
Power Consumption	9 W
Operating Temperatur Range	0 °C to 40 °C
Dimensions (W x H x D)	84.7 x 80.4 x 230.3 mm
Weight	240 g
ACCESSORIES	
6-pole Euro block connector	For GPIO Control Port

Montage

1. Endstufe ausschalten und Netzstecker abziehen
2. Leerblende an Rückwand der Endstufe abschrauben (4 Schrauben)
3. RCM-26-Modul in Slot einschieben und mit 4 Schrauben an Rückwand befestigen (siehe Abbildung unten)
4. CAN-Adresse des Moduls über ADDRESS-Wahlschalter einstellen
5. Anschließen benötigter Schnittstellen (CAN, Audio, Control-Port, RS-232)
6. Netzkabel in Endstufe einstecken und Endstufe einschalten
7. Das RCM-26-Modul wird in der Endstufe automatisch erkannt.

Installation

1. Switch the power amp's power off and pull the mains plug
2. Remove the cover panel from the rear panel (4 screws)
3. Insert the RCM-26 module in the slot and lock it in place on the rear panel using the 4 screws (see illustration below)
4. Set the module's CAN address using the ADDRESS selector switches
5. Connect the needed interfaces (CAN, Audio, Control Port, RS-232)
6. Reconnect the mains cord and switch on the power amplifier
7. The power amp automatically recognizes the installed RCM-26 module



Abmessungen / Dimensions

