



DTX Digital Stereo Coder



DRX Digital Stereo Decoder

AMPLIFIERS
TRANSMITTERS
ANTENNAS
ACCESSORIES



DTX / DRX CODER / DECODER SYSTEM

DTX e DRX Features

1. 2 or 4 20Hz-15KHz CD quality audio channels.
2. Offers to traditional analog radio links a CD audio quality.
3. Correct decoding with an SNR of the digital signal as low as 30dB.
4. PAM type coding of channels, with 2 levels, a partial response, which enables to reduce the bandwidth.
5. Minimum channel width required: 250KHz (2ch.) or 450KHz (4 ch.).
6. Auxiliary Data Channel RS232.
7. Automatic muting in case of synchronization loss.
8. Led bar indicating the audio level.
9. Meets or exceeds all FCC requirements.
10. Modular composition which enables an easy replacement of circuits and parts.
11. Two independent outputs of the digital signal coded by the DTX.
12. Output of the regenerated digital signal on the DRX which allows multiple leaps without any additional costs.
13. Easy to upgrade from 2 to 4 channels.

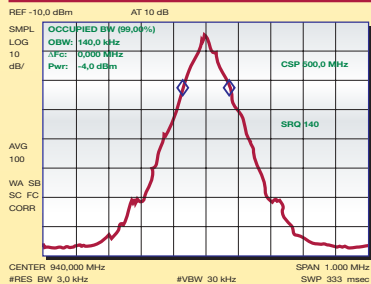
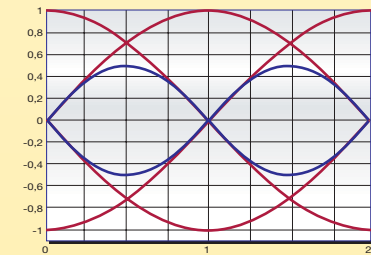
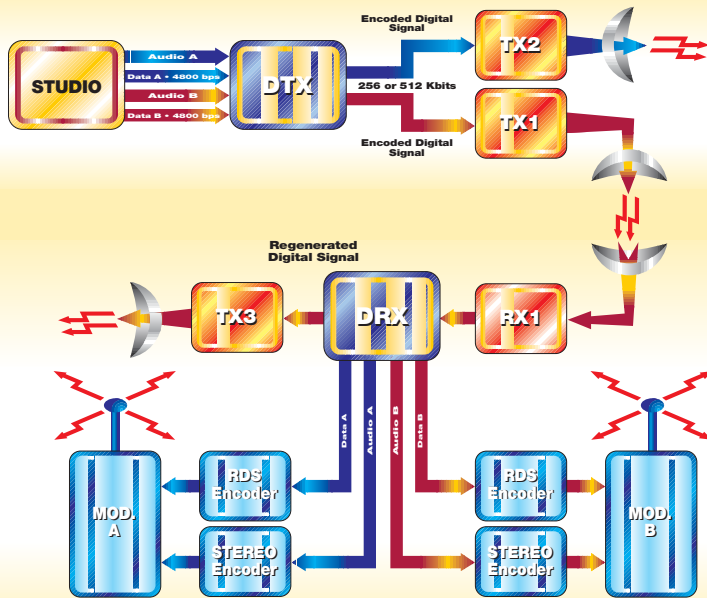
DTX e DRX Caratteristiche

1. 2 o 4 canali audio 20Hz-15KHz in qualità CD.
2. Conferisce qualità audio CD ai ponti radio analogici tradizionali.
3. Decodifica corretta fino a 30dB di S/N sul segnale digitale.
4. Codifica di canale di tipo PAM sagomato a 2 livelli a risposta parziale per minimizzare l'occupazione di banda.
5. Larghezza di canale minima richiesta: 250KHz (2 ch.) o 450KHz (4 ch.).
6. Un canale dati ausiliario RS232.
7. Muting automatico in caso di perdita di sincronismo.
8. Indicatore di livello audio a barra led.
9. Specifiche conformi o superiori alle normative FCC.
10. Realizzazione di tipo modulare per facilitare la sostituzione delle parti.
11. Due uscite indipendenti del segnale digitale codificato sul DTX.
12. Uscita del segnale digitale rigenerato sul DRX per consentire salti multipli senza costi aggiuntivi.
13. Facilmente espandibile da 2 a 4 canali.

DTX e DRX Caractéristiques

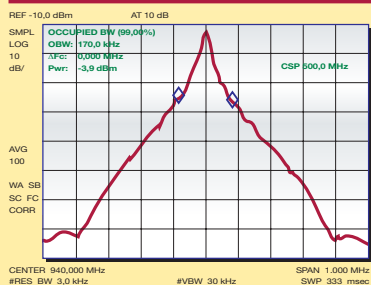
1. 2 ou 4 canaux audio 20Hz-15KHz avec qualité CD
2. Offre une qualité de son CD aux faisceaux hertziens analogiques traditionnels.
3. Décodage correct avec un rapport signal/bruit du signal digital qui peut aller jusqu'à 30dB.
4. Méthode de codage des canaux à 2 niveaux de type PAM qui permet de réduire la largeur de bande.
5. Largeur minimum des canaux requise: 250KHz (2 ch) ou 450KHz (4 ch.).
6. Canal auxiliaire de transmission de données RS232.
7. Muting automatique en cas de perte de synchronisme.
8. Indicateur de niveau audio à leds.
9. Spécifications conformes (ou supérieures) aux normes FCC.
10. Composition modulaire qui facilite les interventions de manutention.
11. Deux sorties indépendantes du signal digital codifié à partir du DTX.
12. Signal digital régénéré à la sortie du DRX afin de permettre des sauts multiples sans coûts supplémentaires.
13. Facilement expansible de 2 à 4 canaux.

These specifications are subject to change without notice.



DTX2
Two Channel Digital Coder
RF Power Spectrum

Measure settings:
• Audio input: 2 channels 0dBm @ 400Hz;
• RF Carrier: 940MHz;
• RF Peak Deviation: ±30KHz.



DTX4
Four Channel Digital Coder
RF Power Spectrum

Measure settings:
• Audio input: 4 channels 0dBm @ 400Hz;
• RF Carrier: 940MHz;
• RF Peak Deviation: ±30KHz.

TECHNICAL SPECIFICATIONS DTX - DRX

System

- Audio Frequency Response: 2 channels from 20 Hz to 15 KHz, ±0,7 dB (for DTX2/DRX2)
4 channels from 20 Hz to 15 KHz, ±0,7 dB (for DTX4/DRX4)
- Preenphasis (for DTX) / Deemphasis (for DRX): Internally selectable CCIR 50 µs (optional FCC 75 µs)
- Data Channel: 1 RS232 channel, max. 8000 baud (for DTX2/DRX2)
2 RS232 channels, max. 8000 baud (for DTX4/DRX4)
- Sampling frequency: 32 KHz
- Audio Coding method: Sub-band ADPCM (Adaptive Differential Pulse Code Modulation)
- Channel Coding: 3 levels Shaped PAM (Pulse Amplitude Modulation)
- Bit Rate: 256 Kbit/s (for DTX2/DRX2)
512 Kbit/s (for DTX4/DRX4)
- Total delay: < 5 ms
- Dynamic Range: > 90 dB
- Total Harmonic distortion @ 1 KHz: < 0,05%
- Signal/Noise Ratio: 80 dB (for DRX)
>75 dB (for DTX)

General

- Audio input/output connectors: XLR (female for DTX, XLR male for DRX)
- Audio input impedance (for DTX): 600 Ω / 10 KΩ balanced/unbalanced
- Audio output impedance (for DRX): 100 Ω balanced/unbalanced
- Coded signal input/output connector: BNC
- Coded signal input impedance (for DTX): 470 KΩ

- Coded signal output impedance (for DRX): 100 Ω
- Auxiliary data input/output connectors: DB 9 pin (female for DTX, male for DRX)
- AC Power Source: 100-120-220-240 V, 50-60 Hz, single phase
- AC power consumption: approx. 15 VA
- Panel size: 483 mm W x 42.5 mm H, 19" – 1 HE
- Overall depth: 371.5 mm (14.6")
- Weight: 7 Kg
- Ambient temperature range: -10 °C to 50 °C

RF System minimum requirements

- Deviation: 38 KHz (for 2 channels version)
53 KHz (for 4 channels version)
- Bandwidth at -3 dB: 200 KHz (for 2 channels version)
350 KHz (for 4 channels version)
- SNR: > 30 dB

Indicators

- Led bar meter for audio level
- Led indicator of +15 V and -15 V voltage presence
- Led indicator of synchronisation error (only DRX)
- Led indicator of automatic reset
- Led indicator of incoming data

Revision: 03/2003



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