

### DHY-03 - Series (Digital)

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## DHY-03



The digital DHY-03 telephone hybrid is probably the best performing digital hybrid in the world, with simply stunning line balance rejection figures. For the best sounding audio calls you're likely to hear, you should specify the DHY-03.

The DHY-03 has the following features :

- Fully automatic - adapts to varying line conditions and has automatic signal limiting.
- Fully adaptive echo cancellation to 127msec - default is 24msec.

- 72dB typical line balance rejection offering superb performance and crystal clear audio.
- Front panel input and output gain controls.
- Front panel LED metering of receive and send signals.
- Built-in conferencing for 2 hybrids, so that a single telco channel on a mixing desk can receive 2 calls.
- Integrated ring detector - automatic call answering after a pre-determined number of rings.
- Automatic call disconnection. Fitted with K-break, line polarity reversal and dial tone disconnect detection, defined by the country selection.
- Automatic ducking facility allows the talent to 'shout-down', or talk over, a caller by reducing the gain of the caller's signal if it goes above a certain level.
- Local and remote line hold switching - calls can be remotely switched through a mixing console.
- Line hold/release button to control line hold circuit, illuminates to indicate the status of the line and flashes to show ring status.
- DTMF tone recognition allowing a opto-isolated GPI output to be made on receipt of selected DTMF tones, e.g. for starting a studio automation recorder automatically to record a remote telephone interview.
- International operation with built-in configurable settings for each country. Country selection allows the unit to provide line impedance and a simulation circuit to match the country.
- RS232 serial port for remote control of the TBU, DTMF tone dialling and firmware upgrades to add new country settings.
- Remote port distributes the remote line connect switch and tally output, a momentary/latch selector and the DTMF detect output.
- The remote line connect switch can be either momentary or latching in its action.
- Balanced mic/line input - 10k balanced input selectable for 0dBu clean feed line, or microphone level with adjustable gain.
- Balanced output - 0dBu low impedance balanced output, with output gain settings.
- Record output - the conferencing output can be set via a jumper to give a mix of the caller and mic/line input signals for

recording both sides of the telephone conversation.

- Line limiter, bandpass filter and output noise gate with preset threshold providing low distortion audio.
- Built in universal power supply between 90V AC and 250V AC, 47-63Hz, IEC mains input.
- ETSI approval compliant with European PTT specifications.

*// The digital DHY-03 telephone hybrid is probably the best performing digital hybrid in the world. //*

#### Which Format Is Most Suitable ?

The DHY-03 analogue hybrids are available in three models :

DHY-03 Single free-standing automatic digital TBU.

DHY-03S Single 19" rack mounted automatic digital TBU.

DHY-03T Twin 19" rack mounted automatic digital TBU.

Additionally, a eurocard size digital hybrid DHY-02EC is still available from the existing DHY-02 range.

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### DHY-03 - Series (Digital)

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**DHY03 - Front**



**DHY03 - Rear** *Single free-standing automatic digital TBU.*



**DHY03S - Front**



**DHY03S - Rear** *Single 19" rack mounted automatic digital TBU.*



**DHY03T - Front**



**DHY03T - Rear** *Twin 19" rack mounted automatic digital TBU.*



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### DHY-03 - Series (Digital) - Technical Specification

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#### Audio Specification For DHY-03

Input Impedance - Line Mode (Clean Feed):	10kΩ balanced 0dB
Input Impedance - Conferencing:	10kΩ balanced 0dB
Input Impedance - Microphone Mode:	2kΩ balanced
Input Level Gain Range:	+6dB, 0dB, and -6dB adjusted by 3-position front panel switch, +10db Jumper
Microphone Level Gain Preset:	From 65dB to 35dB
Maximum Input Levels:	Line +26dBu, mic -24dBu
Clean Feed Limiting Input:	-4dBu for CTR21 setting, other values available *
Bandwidth to Telephone Line:	250Hz - 4kHz, -3dB ref 1kHz
Telephone Line Impedance:	600Ω, 900Ω plus 14 other complex impedance circuits *
Output Impedance - Line Out:	50Ω balanced floating 0dBu
Output Impedance - Conference/Record:	50Ω balanced floating 0dBu
Output Level Gain Range:	+6db, 0dB, and -6dB adjusted by 3-position front panel switch
Rejection Ratio:	72dB on tones or complex waveforms, reference peak level of 0dB
Ring Detector Sensitivity:	Off, 2, 4 or 6 rings
Power:	Universal 12W power supply: 90 to 250V AC; 47-63Hz; fused 1A

\* These values are dependent on the actual country setting selected on the DHY-03

#### Connections

Mic/Line Input:	XLR 3 pin female, with push-button mic/line selection
Line Output:	XLR 3 pin male
Telephone Line:	RJ11 6/4 socket
Telephone Handset/Instrument:	RJ11 6/4 socket
Conferencing or Record Audio:	RJ45 socket
Remotes:	9-way D-type socket
RS232 Serial:	9-way D-type socket
Power:	IEC mains (CEE22)

Each unit is supplied with 1 x RJ11 to RJ11 telephone line lead, 1 x RJ11 to BT plug telephone line lead, 1 x BT handset socket to RJ11 plug adapter, IEC mains lead fitted with moulded mains plug, handbook and warranty card.



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Physical Specification Order Code	Description	Height	Width	Depth*	Total Nett Weight	Total Gross Weight
DHY-03	Automatic digital TBU, free standing	4.5cm	21.8cm	17.5cm	1.4kg	2.2kg
DHY-03S	Automatic digital TBU, 19" rack mounted	4.5cm (1U)	48.3cm	17.5cm (19" rack width)	1.45kg	2.3kg
DHY-03T	Twin automatic digital TBU, 19" rack mounted	4.5cm (1U)	48.3cm	17.5cm (19" rack width)	2.80kg	4.4kg

\*Depth is measured from the front to the end of the connectors fitted to the back of the unit.

Accessories Order Code	Description
DHY-03SCON	Front panel conversion kit, DHY-03 free standing to DHY-03S 19" rack-mount front
DHY-03TCON	Front panel conversion kit, DHY-03 or DHY-03S, to DHY-03T 19" rack-mount front
DHY-02EC	Eurocard version of DHY-02 analogue TBU

