

Duo

**Duplex
Intercom
Transceiver**

**Combined
transmit and
receive in a
single unit**

**True duplex
operation**

**High quality
audio**

**Synthesised
frequency control**

**Long battery life
using standard
AA batteries**

50mW RF output

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*making
waves*



Duo gives studio floor crew a simple to use high quality, true duplex, 'single box' solution to wireless intercom needs.

Using advanced synthesised frequency control techniques, Duo operates in the 400 to 900MHz frequency range and has four non-volatile internally stored channels. These can be readily reprogrammed using standard PC software.

Duo delivers 50mW RF output power, a level more than adequate for effective operation in the largest studio complex. For smaller working areas the power output can be reduced through internal adjustments.

Operating from a pair of AA batteries, Duo will give an extended battery life of over 10 hours under normal operating circumstances. A combined visual and audible low battery indication is just one of the many facilities designed as standard into this rugged unit.

In use, Duo requires an operator worn headset and boom microphone assembly with integral push to talk (PTT) switch. A secondary PTT switch is provided on the Duo front panel. Headsets are often a personal choice of the user so compatible types and configurations to suit all tastes are available from Wood & Douglas.



In common with other products in the range and in contrast to competitor systems Duo uses narrow band FM techniques to provide high quality audio while remaining spectrally efficient.

By satisfying European ETS 300 086 mobile radio specification, Duo will technically comply with the most demanding of type approval requirements anywhere in the world.

This aspect together with frequency agility, small size, excellent audio quality and extended battery life all contribute to make Duo the natural choice for professional studio wireless intercom applications.



Duo Duplex Talkback Transceiver

General

Frequency range	400 - 900 MHz (banded)
Number of channels	4 with push switch selection
Duplex spacing	10 MHz typical, 5.5 MHz minimum
Switching bandwidth	10MHz
Channel spacing	25kHz or 12.5 kHz
Frequency stability	±2.5ppm over temperature range
Frequency response	25kHz 40Hz to 4.5 kHz
Pre / de-emphasis options	50µs or 6 dB per octave or flat (jumper selectable)
Battery type	2 x AA alkaline primary cells
Battery life expectancy	>10 hours (95% RX; 5% TX)
Size	180 x 60 x 22mm (7.08" x 2.36" x 0.86")
Weight	150g (5.28oz)
Operating temperature	-20°C to +55°C
Housing	High impact injection moulded case
Connectors	4 way Lemo OB Series
Controls	on/off switch, volume control, channel change, PTT

Receiver

Sensitivity	< -115 dBm for 12 dB SINAD (with weighting filter)
Adjacent channel selectivity	25kHz >70 dB
	12.5kHz >60 dB
Image rejection	>70 dB
Intermodulation rejection	>65 dB
Blocking	>84 dB
Intermediate frequencies	45 MHz and 455 kHz
Distortion	25kHz <2 % at 1 kHz
	12.5kHz <3 % at 1 kHz
Antenna	Transducer cable
AF load impedance	16 ohms
Audio output level	1.5V RMS into 600 ohms ; 20mW into 16

Transmitter

RF power output	50 mW (adjustable down to 5mW)
TX enable time	<50ms
Adjacent channel power	<200 nW
Deviation	25kHz ± 3 kHz nom (± 5 kHz max)
	12.5kHz ± 1.5 kHz nom (± 2.5 kHz max)
Antenna	Internal frame loop
Modulation input sensitivity	-60 dBm for peak deviation; 600 ohms unbalanced
Microphone type	Dynamic or Electret (Internal link selectable)
Soft limiter	Constant deviation over >20dB mic input range

Options

Carrying Case
CTCSS

Associated Equipment

Symphony Wireless Intercom Base Station
Solo Presenter Feed Receiver
Trio Transmitter

Wood & Douglas maintain a policy of continuous product improvement and enhancement. As a consequence, the above specification may change without notice.

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