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## DXT/DXR

### Issue 1, 07 August 2014

## DX series remote control boards

These simple application boards use the firmware and signalling protocols of the existing CXTCXR odule products, interfaced with a choice of SIL package radio modules. A single relay output is provided, controlled by a pair of logic (or switch) inputs on the transmitter. Latched or momentary operation is selectable.

The data format employed has a 16 bit address, which can be user programmed via an RS232 compatible input



Figure 1: DX series remote control boards

## **Range of Features**

- Programmable 16 bit address
- 1 relay to control mains powered devices rated up to 8A, 250VAC/30VDC
- Visual indication of valid code received and active relays
- RF module range testing
- Momentary, Latched outputs
- Setup is simple as Plug-and-Play
- RF Remote Control Demonstration
- Can be used with any Radiometrix SIL pinout transmitters and receivers

## **Applications**

- Security and Alarm systems
- Emergency assistance call system
- Status reporting and monitoring systems
- RF Remote control systems
- Industrial controls
- HVAC controls
- Simple On/Off switching
- Long range telecontrol with Narrow Band FM radios

## **Common features:**

Interfaces			
Input/output	3.5mm pitch 3 way terminal block		
Power	3.5mm pitch 3 way terminal block (third pin is the PGM input)		
RF	5mm pitch 2 pin way terminal block for Helical coil or 1/4 wave monopole		
	antenna (or optional soldered-in aerial)		
Indicators			
	receiver LED		
DTX/DRX IC			
	Clock	3.58MHz (ceramic resonator)	
	Data rate	500bit/sec Biphase coded burst	
	Addressing	User programmable 16 bit address	
	Part:	PIC16F630 SOIC14	
Operating temperature			
	-20 to +70 degrees centigrade (some radios may be limited to -10/+55)		
	(Storage	-30 to +70 degrees)	

## **DTX** board

Inputs	Active low logic inputs ('set' and 'reset/momentary) Pullups to 3v, and protection diodes, provided Compatible with N/O volt-free closing contact (push-buttons)		
Supply	4 –15V		
idle current:	<1uA		
transmit current	(depends upon radio module fitted)		
	20mA with NTX2-434.650-10 fitted		
Radio modules	Any low power SIL pinout transmitter (TX1, NTX2, TX2A, TX3A, TX3B)		
Size	71 x 32 x 16mm (3.3mm diameter mounting holes are provided)		

## **DRX** board

Outputs	8amp 240v rated change over 240v mains rated relay		
	LED indicator for 'relay energised'		
Supply	12v (10-15v)		
receive/idle current	(depends upon radio module fitted)		
	20mA with NRX2-434.650-5 fitted		
relay current	+20mA when activated		
Radio modules	Any SIL pinout receiver (NRX1, NRX2, RX2A, RX2G, RX3A, RX3G,		
	WRX2, RX2B)		
Size	98 x 32 x 16mm (3.3mm diameter mounting holes are provided)		

## **Operating modes**

Device operation is set up by a 3 pin jumper on the receiver board, selecting latched on/off or momentary 'push button' operation

## **Programming the address**

These units employ a sub-set of the programming commands used by standard CTX/CRX modules. Address is set with the command AVALUE  $\ensuremath{\mathsf{VALUE}}$ 

As the SI pin is dedicated to serial communication only, the 'ENABLESERIALMODE' command string is NOT required.

A 2400 baud true RS232 format' (1 start bit, 8 data, 1or 2 stop bits, no parity) is used, connected to the PGM pin of the power connector.

Commands	Function	
AVALUE bbbbb	set value for unit address	
<cr></cr>	process entry	
/	clear all buffers	
bbbbb = address (up to 65535, in decimal)		

To successfully program the unit it must be in active state A receiver board must simply be powered A transmitter board must be powered, with BOTH inputs grounded (in this state it will listen to the serial pin, but will not transmit)

Each command sequence must end with a carriage return (ascii 13)

## **Ordering Information**

Part No.	Version	Frequency band		
DXR-173.250-RX1	RX1 fitted decoder	173.250MHz		
DXT-173.250-TX1	TX1 fitted encoder	173.250MHz		
DXR-434.650-NRX2	NRX2 fitted decoder	434.650MHz		
DXT-434.650-NTX2	NTX2 fitted encoder	434.650MHz		
DXR-433-RX2A	RX2A fitted decoder	433.92MHz		
DXT-433-TX2A	TX2A fitted encoder	433.92MHz		
DXR-869-RX3A	RX3A fitted decoder	869.85MHz		
DXT-869-TX3A	TX3A fitted encoder	869.85MHz		
DX series encoder and decoder boards can be supplied with any SIL pinout transmitters (TX1, NTX2,				
IX2A, IX3A, IX3B etc.) and receivers (NKX1, NKX2, RX2A, RX2G, RX3A, RX3G, WRX2, RX2B)				

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The Intrastat commodity code for all our modules is: 8542 6000

## R&TTE Directive

After 7 April 2001 the manufacturer can only place finished product on the market under the provisions of the R&TTE Directive. Equipment within the scope of the R&TTE Directive may demonstrate compliance to the essential requirements specified in Article 3 of the Directive, as appropriate to the particular equipment.

Further details are available on The Office of Communications (Ofcom) web site: http://www.ofcom.org.uk/

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