



CTSS DECODE LINKS

| TONE | FREQUENCY | D0 | D1 | D2 | D3 | D4 | D5 |
|------|-----------|----|----|----|----|----|----|
| A | 67Hz | H | H | H | H | H | H |
| B | 71Hz | H | H | H | H | H | L |
| C | 82Hz | H | H | H | H | L | L |
| D | 88.5Hz | L | L | L | L | L | L |
| E | 94.8Hz | L | L | L | L | L | L |
| F | 103.5Hz | L | L | L | L | L | L |
| G | 109.9Hz | L | L | L | L | L | L |
| H | 108Hz | L | L | L | L | L | L |

NOTES

- This PCB (Issue 4) can be used for both MkI & Mk2 HDZ designs. The MkI does not feature CTSS decode. This was added by G3VJT and is the circuitry shown in the dotted line. If CTSS decode is not required, the parts in the dotted line need not be fitted.
 - For keying the transmitter, both -Ve and +Ve outputs are provided. For -Ve (ground to TX) operation do not fit TR2 and use pin 4. For +Ve TX keying, such as on the MK294, fit TR2 and use the output on pin 10 and provide the 10V PTT voltage on pin 3.
 - Pin 3 is the input level to the FX365 so the threshold level for decoding can be determined. Adjust so a CTSS tone with 100Hz deviation will just decode. This can be set higher if problems occur with false decoding, but not higher than 200Hz.
 - LINK A is not used. Dnly provided to connect the spare line from the PIC to the output connect should it be required in the future.
 - LED backlighting takes approx. 100ma. Remove R24 or R25 if this is not required.
- PVE F494 Connections
- | F494 Facilities Socket | Function |
|------------------------|-----------------|
| 1 & 2 | 0V |
| 3 | 5V |
| 4 | Mainz Fall |
| 6 & 8 | TX Key |
| 12 | RX Audio & CTSS |
| 15 & 16 | Squelch |
| 15 & 16 | TX Audio & CTSS |
| 15 & 16 | 12V |
- Note 1: The logic fall connection to logic link pin 3 of logic to junction of R2/LED1 with a 10k475 diode (5V/100pF) end of diode to R2/LED1 on AC/24V DC Regulator PCB in PVE F494. Cut out LED 1 in F494 Reg PCB

| Issue | Description | App | Date | Drawn | Approved | Date |
|-------|--|--------|-------|--------|----------|-------|
| 1 | | MH/FED | 11/03 | MH/FED | | 11/03 |
| 2 | Mainz Dn LED taken to +5V, R23 deleted | MH/FED | 1/06 | | | |

| | | | |
|--------------------------------|--|-----------------------|--|
| Title: HOZ REPEATER LOGIC MKII | | Drawing No: HOZ-CD001 | |
| Drawn: GB31G | | Approved: GB31G | |

| | | |
|------------------------------------|------------------|--------------|
| Scale 1:1 when printed on A2 sheet | Dimensions in mm | Sheet 1 of 1 |
| First Angle Projection | | |

