PA switch logics

Q10

at Bottom layer!

PDTC143XT

Transmit Receive Signal PTT out (= BIAS on/off) L Н Remark: L Bypass relais upr (=RX/TX relais) H We don't touch the build-in SoC STM32. Н PTT RCA L The automatic band select stay intact through the STM32! Our ESP32 starts itself if +12V power supply connected to the amp. T1 To find the split points for our needed signals you need look into the original schematic of Neptune 50W PA! OUT GND switch BIAS on/off ALL POINTS except the TX_LED and ON_LED are located AT THE BOTTOM LAYER! Vdd = +3.3VSO YOU HAVE TO SCREW OFF THE MAINBOARD FROM HEATSINK for soldering the wires go to the ESP32! H = HIGH = +3.3V L = LOW = 0V/GND LP2951-ADJ soldering point for data wire to the ESP32 Remove original TX LED WAVESHARE ESP32-S3 Zero DBK SNSE 10uF 25V soldering point for data wire to the ESP32 at Bottom laver! 160M_led > 470 R1 new TX LED 10k* 3.30 red LED 1.8-3.5MHz - 470 14-18MHz > 470 BIAS ON/OFF 50MHz > 4 / 0 -BC547D Beware! The BC547D works as a switch and invert the logic! If B input is H/+3.3V, then the "test lead" if the Amp is switched ON = ON LED lights up C-E-line is on and the BIAS will be ON, because the BIAS line is L active! PTT input circuit from the RCA socket Replacing amp control Neptune PA 50W with an ESP32 SoC (WAVESHARE ESP32-S3 Zero) switch the RX/TX relais especially for stable use with Hermes-Lite 2 idea by DL1BZ & made by DL1BZ in 04/2024 soldering point for data wire to the ESP32

at Bottom laver

soldering point for data wire to the ESP32

ONLY for use in Amateur Radio!

YOU DO ALL AT YOUR OWN RISK!

WITHOUT ANY WARRANTY!

NOT for commercial use in any case!

C97

10n

PTT RCA