

FULL WIRING SHEET 7 — TIER-0 TWO-CLUSTER ARCHITECTURE (Option B, rev 3.32): FRONT board + BED board
 Two Waveshare ESP32-S3-POE-ETH-8DI-8DO boards split by LOCATION, each 12V-fed (not PoE), each its own OTA ESPHome firmware, both on the always-on Pi MQTT broker via Switch A.
 The pin-level detail is sheets 1-6; THIS sheet shows what lives in each cluster + the one Ethernet link between them.
 LEGEND: teal = Ethernet (MQTT/coord) · magenta = local RS485 (Modbus) · purple dashed = DO -> relay · red = 12V power · orange = combiner control

