

Backwall Reader (Tower) In Process Q/A

BD Part # 355467-01	
Reference Drawing:	VR102601-Interconnect Diagram_Rev A
Family Tree:	SRA-16_Tower Antenna_Family-Tree
Q/A Checklist Reference:	Backwall Reader (Tower) QA Checklist
Sequence	

In Process Inspection_01

- 1 Plastics have been routed & deburred per Engineering specifications. (Machining process M001 & M002; Part # VR102681/102682)
- 2 Verify that Lot # of HDPE has been recorded.

In Process Inspection_02

- 1 Ground Plane cut to correct dimension and installed to routed HDPE.
- 2 Install FR4 with glue to HDPE using Heat Process per Engineering procedure.
- 3 Verify that Lot # of FR4 has been recorded.
- 4 Verify Mux Boards have been created and assigned an asset number in the database. (Primary & Secondary)
- 5 Verify Mux Boards have been installed in correct order to routed HDPE. (Primary & Secondary)
- 6 Inspect solder joint from ground plane to mux boards.
- 7 Inspect solder joints for feedlines to mux boards.

In Process Inspection_03

- 1 Verify M6e ThingMagic reader (Product ID # 225029) has been created and assigned an asset number in the database.
- 2 Verify M6e ThingMagic reader (Product ID # 225029) has a passing test per Engineering Test Procedure.
- 3 Verify that the Interface board has been installed per interconnect diagram VR102601.
- 4 Ensure cables have been tested by an identifying green dot (In-House Built). (*If outsourced cables are used verify Lot # has been recorded.*)
- 5 Verify connections of cables per Interconnect diagram VR102601.

In Process Inspection_04

- 1 Verify VSWR test has passed per Engineering Test Procedure.
- 2 Verify RFID (Product ID # 225322) has been created and assigned an asset number in the database.
- 3 Verify that Asset # or VRSN label has been applied to FR4 per Interconnect diagram VR102601.

In Process Inspection_05

- 1 Verify RF cables have been connected to the Thingmagic Reader.
- 2 Verify unit has a passing System test per Engineering Test Procedure.
- 3 Verify unit has a passing Open Top Antenna Far Field Test per Engineering Test Procedure.
- 4 Verify all RF cables are installed and glued down.
- 5 Verify Interface board (Product ID # 225331) has been created and assigned an asset number in the database.

In Process Inspection_06

- 1 Verify 1/8" Top ABS has been routed per Machining process **M003**; Part # **VR102653_BDTPABS_REV1**
- 2 Verify that Lot # of 1/8" ABS material has been recorded.
- 3 Verify 1/16" Bottom ABS has been routed per Machining process **M004**; Part # **VR102654_BDBOTABS_REV1**
- 4 Verify that Lot # of 1/16" ABS material has been recorded.
- 5 Verify gluing of 1/16" & 1/8" ABS material to unit has been performed per Glue Process Procedure.
- 6 Verify that edges have been rounded and cleaned on unit.
- 7 Verify that mounting holes have been drilled per Machining process **M006**; Part # **VR102688 (BD Document # DTC20000025109-000-05)**

FINAL Q/A

- 1 Verify connector plate has been installed securely and has unit asset number applied.
- 2 Verify FCC/Certification labels have been applied per **(BD Document # DTC20000025109-000-05)**
- 3 Verify MFC & VRSN labels are applied per SRA-16 MFC label Requirements drawing. **(SRA-16_MFC Label Requirements)**
- 4 Verify Connector on plate is covered with ESD film cover.
- 5 Place fixture on face up unit and verify unit dimensions. Remove fixture when complete
- 6 Verify unit has completed all passing tests (VSWR, System, Far Field, & Pre-Box Test)
- 7 Verify the Q/A Checklist has been completely filled out.
- 8 Verify all VRSN #'s have been linked accordingly in the database. **(Family Tree will also reflect VRSN #'s)**
- 9 Verify unit has been cleaned and free from loose debris.
- 10 Verify a Certificate of Conformance sheet has been printed, information is correct, and is attached to unit.