

# Backwall Reader (Tower) In Process Q/A

<b>VR102601</b>	
Reference Drawing:	VR102601-Interconnect Diagram_Rev A
Family Tree:	ISO-FAM-001
Q/A Checklist Reference:	Backwall Reader (Tower) QA Checklist Rev. F (ISO-QAC-52)
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 Data, GPIO, & RF cables between mux boards per Interconnect diagram VR102601.

## In Process Inspection\_04

- 1 Verify RF cables have been connected to the Thingmagic Reader per interconnect diagram VR102601
- 2 Verify VSWR test has passed per Engineering Test Procedure.
- 3 Verify Interface board (Product ID # 225331) has been created and assigned an asset number in the database.
- 4 Verify RFID (Product ID # 225322) has been created and assigned an asset number in the database.
- 5 Verify that Asset # or VRSN label has been applied to FR4 per Interconnect diagram VR102601.
- 6 Verify unit has a passing System test per Engineering Test Procedure.
- 7 Verify unit has a passing Open Top Antenna Far Field Test per Engineering Test Procedure.
- 8 Verify all cable assemblies are installed and glued down.

## **In Process Inspection\_05**

- 1 Verify 1/8" Top ABS has been routed per Machining process **M003**; Part # **VR102653\_BDTOPABS\_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 unit on fixture and verify unit dimensions. Remove unit from 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 all In-Process inspections and Incoming Q/A Checklists have been completed prior to step 11.
- 11 Verify a Certificate of Conformance sheet has been printed, information is correct, and is attached to unit.