

WARNING: ITAR CONTROLLED INFORMATION

**Arrowhead
Software 1.0.1
Release Notes**

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Arrowhead Software 1.0.1 Release Notes

The following sections are included in this document:

- Product Description**
- Important Notes**
- Features**
- Resolved Issues**
- Known Issues**

Product Description

Arrowhead is a Directional Finding smart antenna with integrated receivers that is designed to work in conjunction with an active transceiver.

The Arrowhead 1.0.1 release consists of the following software versions:

- Application SW version 1.0.1.1000
- System SW version 1.0.1.1015
- DSP version 1.0.710.1031
- FPGA version 2014-08-22 01:33

Important Notes

When running CDMA DF with an ArrowHead, the transceiver timing source needs to be “synchronized to the network”.

Features

This release of Arrowhead includes the following features:

- **Multi-Protocol** – Arrowhead provides uplink direction finding for all protocols supported by MSDF connections.
- **Uplink 3GPP band support** –
 - Band 1: 1920MHz – 1980MHz
 - Band 2, 25: 1850MHz – 1915MHz
 - Band 3, 4, 9, 10: 1710MHz – 1785MHz
 - Band 5, 6, 26: 814MHz – 849MHz
 - Band 7: 2500MHz – 2570MHz
 - Band 8: 880MHz – 915MHz
 - Band 20: 832MHz - 862MHz
 - Band 13: 777MHz – 787MHz
 - Band 17: 704MHz – 716MHz
 - Band 27: 806MHz – 824MHz
 - Band 28: 703MHz – 748MHz
- **Line of Bearing Confidence** – the compass arrow changes color based on the confidence of the directional measurement:
 - **Green** – High Confidence
 - **Yellow** – Medium Confidence
 - **Red** – Low Confidence

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This release does not support the following:

- **Upside-Down mounting**
- **Base Station Direction Finding**

Resolved Issues

- **Erratic LOBs for UMTS MSDF** – This issue only occurs when running UMTS MSDF after a power-up, and does not occur if MSDF on another protocol (GSM, CDMA, LTE) is run prior to UMTS. Most ArrowHead units will not exhibit this issue.

Known Issues

The following are known issues that were uncovered during the testing of this software release.

- **Self Test** – The Arrowhead self test is not fully populated. Status provided and displayed on the PCC does not provide all self-test status.
- **RF Overload Protection Indicator** – The RF overload indicator does not show when the RF overload condition happens. However, the protection circuit works as designed.
- **Critical Temperature Indicator** – When Arrowhead reaches the critical temperature, Arrowhead shuts down but the Critical Temperature Indicator is not shown every time the condition happens.

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