



Iridium 960x Transceiver

Software Release Note

IRDM-1023-SRN-005 v7.0

TA21004



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1 Introduction

This document details the feature changes contained in the software version TA21004 release for the Iridium 9602, 9603, 9602N, and 9603N transceivers.

The primary purpose of this release is to add support for the newest revision of the RF Application Specific Integrated Circuit (ASIC) used in these products.

2 Upgrade Tool

An upgrade tool is provided to load the revision TA21004 software onto an Iridium 9602, 9603, 9602N, or 9603N transceiver. The upgrade tool associated with this release has been tested with Microsoft Windows 10.

To use the upgrade tool, connect the Data/Fax port on the transceiver to a PC COM port, launch the upgrade tool, and click Upgrade to perform the upgrade. After the upgrade is complete, the transceiver will report version TA21004 when queried with the AT+CGMR command.

3 Hardware Compatibility

This software release has been tested to be compatible with the following hardware models:

HARDWARE MODELS				
SBD9602F	SBDG9602A	SBDN9602A01	SBD9603A	SBDN9603A01
SBD9602F02		SBDN9602B01	SBD9603B01	SBDN9603B01
		SBDN9602C	SBD9603C01	SBDN9603C
		SBDN9602D		SBDN9603D
		SBDN9602E		SBDN9603E
		SBDN9602F		

Iridium may produce and distribute hardware models loaded with software version TA21004 that are not indicated on this list at its sole discretion and without notice.

4 Change List

4.1 TA21004

DESCRIPTION
Added support for newest revision of RF ASIC.
Added support for transceivers with Type Allocation Code 301434 to receive mobile terminated SBD message ring alerts.

4.2 TA20003

DESCRIPTION
Improved communication channel selection algorithm used when establishing a connection with the network.
Add stronger validation checking of periodic radio calibration changes before storing to persistent memory.

4.3 TA19002

DESCRIPTION
Leveraged enhancements offered by the Iridium NEXT constellation to improve network connectivity and improve reception of transceiver ring notifications from the core network.
Addressed an issue whereby channel assignments were inadvertently being discarded.
Added support for transceivers with Type Allocation Code 300534 to receive mobile terminated SBD message ring alerts.

4.4 TA17006

DESCRIPTION
Changed the software bootloader to provide compatibility with alternate flash memory devices. Ensures production continuity if issues arise in the supply chain for this part. Functionality of the product is unchanged as compared to TA16005.

4.5 TA16005

DESCRIPTION
Fixed a bug that prevented correct operation when used in conjunction with the Value Added Manufacturer End-of-Line Test Tool on the Iridium 9602N and 9603N products.
Corrected an issue that was introduced in TA14001 which prevented characters sent to the AT interface during an SBD session from being appropriately discarded.
Removed support for commands specific to the Iridium 9602SB series transceivers. Commands AT+SBDCC, AT+SBDPC, AT+SBDRC, and AT+SBDWC are no longer available and will report ERROR if called. The contents and use of S-registers S117, S118, S119, and S120 are now undefined.
Removed deprecated CpeM and CpeA DSP images and associated CGMR response.
The AT+GEMON command is no longer available and will report ERROR if called.

4.6 TA15002

DESCRIPTION
Added support for Iridium 9602N.

4.7 TA14001

DESCRIPTION
Added support for Iridium 9603N.
Added production test command required by the Value Added Manufacturer End-of-Line Test Tool.

4.8 TA13001

DESCRIPTION
Reduced the likelihood of the SBD traffic management algorithms resulting in long back-off periods.

4.9 TA12003

DESCRIPTION
Added support for Iridium 9603.
Fixed AT command parsing bug causing error response to combination of AT commands with AT commands AT-MSGEO and AT-MSSTM.
Fixed a bug causing reporting of status code 18 (RF link dropped) for SBD-related AT commands. Status code 18 was previously returned in cases when status code 32 (no RF link) or 38 (traffic management / SBD exponential back-off lockout) should have been returned.

4.10 TA11002

DESCRIPTION
Added AT+SBDGWN command to address incorrect responses to AT+SBDGW query.
Added SBD exponential retry back-off algorithm to improve network load management.
Extended AT+SBDAREG and AT+CIER commands.

4.11 TA11001

DESCRIPTION
Improved transmit power control loop.
Fixed incorrect reporting of queue size for mobile terminate messages following a queue flush at the gateway.
Fixed potential loophole causing AT+F to not return OK response.

4.12 TA10003

DESCRIPTION
Initial production release for the Iridium 9602.