



SeeGull® EX CDMA/EVDO Product Release Notes

SeeGull® EX CDMA/EVDO Product Release Notes

Release 1.3

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1.0 Current Release Notes

SCANNER COMPONENT VERSIONS

File Name	Version
Supported Digital boards	700050-03
Supported RF boards	700049-02 700049-11 700049-18 700049-19
EX DSP	0.0.8.44
EX Embedded SW	2.1.2.24
Boot Loader	3.12.0.0
Clock Card Embedded SW	12.9
Digital Logic	0.0.7.50
Logic Device ID	N/A
SeeGull API	2.3.4.11
eICD	2.1.4.0

SUPPORTED OPTIONS

Option Code in Hex	Description
CDMA/EVDO	
0001 0003	IS-95
0003 0003	IS-95 Pilot
0004 0003	IS-95 Code Domain
0001 0005	IS-2000
0003 0005	IS-2000 Pilot
0004 0005	IS-2000 Code Domain
0001 0006	IS-856
0003 0006	IS-856 Pilot
Misc.	
0001 0000	GPS Navigation
0003 0000	Spectrum Analysis
0005 0000	Absolute Time Stamp
0006 0000	Enhanced Power Scanning

SUPPORTED CONFIGURATIONS

Part Number	RF Board	Band Number	Band Supported	Protocol
06134	1	1	1900	CDMA/EVDO
		2	850	CDMA/EVDO
06136	1	1	1900	CDMA/EVDO
		2	1900 Reverse	CDMA/EVDO
	2	3	850 Reverse	CDMA/EVDO
		4	850	CDMA/EVDO
06137	1	1	1900	CDMA
		2	850	CDMA
06138	1	1	1900	EVDO
		2	850	EVDO
06139	1	1	AWS	CDMA
		2	N/A	
06153	1	1	AWS	CDMA/EVDO
		2	N/A	
06154	1	1	Extended 1900 (1990)	CDMA/EVDO
		2	N/A	
06155	1	1	Extended 1900 (1990)	CDMA
		2	N/A	
06156	1	1	850 Reverse	CDMA/EVDO
		2	850	CDMA/EVDO

The release details and history are detailed in the following sections.

FEATURES

- AWS (2110-2155MHz) and Extended PCS (1930-1995MHz) Forward Band Support
- Up to 24 carriers for Top N scanning CDMA, and EVDO combined
- Enhanced Power Scan support”
 - Up to 2560 slots (i.e. bins supported per scan)
 - 5120 bins total scanner capacity
 - Auto, Manual and Immediate Measurement Mode
 - Channel or Frequency base request
 - Power flags bits(8:9); min, max and center supported
 - Measurement Window valid values range from default 0 to 400
 - If (RBW<= 4.5MHz) & (Frequency step <RBW) will return message status “Parameter out of range”
 - If (RBW >4.5 MHz) & (Frequency step !=RBW) will return message status “Parameter out of range”
 - Absolute Time Stamp reported with each scan response
- CDMA Code Domain Analysis Scan support
 - Up to 128 CDMA-2000 or up to 64 CDMA-one Code Channel Ec/Io on one Pilot i.e. cell PN number reported
 - Io, Estimated Rho and Frequency Offset reported
 - Time offset in the form of High Resolution Pilot Delay reported. High Resolution Pilot Delay comprised of reported Pilot Delay in chips and Pilot Delay Fractional in 1/100th of chip
 - Absolute Time Stamp reported with each scan response

KNOWN PROBLEMS IDENTIFIED IN THIS RELEASE

- None

PROBLEMS RESOLVED IN THIS RELEASE

- [2432] Spectrum Analysis 5kHz Resolution BW mean error differs by approximately 0.8dB compared to all other Resolution BW supported
- [2466] Only Pilot Ec/Io values greater than User PN Threshold +0.7 dB reported in CDMA Top N Scanning

THE FOLLOWING MESSAGES ARE SUPPORTED IN THIS VERSION

EX General Messages

- Error Message
- Inquiry Message
- Available Options Message
- Reset Message.

EX Scan Messages

- EPS Scan Message
- RSSI Scan Message.
- Spectrum Analysis Scan Message
- Top N Pilot Scan Message (CDMA/EVDO)
- Code Domain Analysis Scan Message (CDMA)
- Immediate EPS Scan Message
- Immediate RSSI Scan Message
- Immediate Top N Pilot Scan Message (CDMA/EVDO)
- Stop Scan Message.

EX Information Messages

- Get Product Information Message
- Channel to Frequency Message
- Frequency to Channel Message

EX Other Messages

- Get GPS Position Message

NOTES

- None

2.0 Previous Release Notes

2.1 SeeGull EX CDMA/EV-DO Release 1.0.3 (September 2009)

SCANNER COMPONENT VERSIONS

File Name	Version
Supported Digital boards	700050-03
Supported RF boards	700049-02 700049-11
EX DSP	0.1.8.9
EX Embedded SW	2.1.2.15
Boot Loader	3.12.0.0
Clock Card Embedded SW	12.9
Digital Logic	0.0.7.50
Logic Device ID	N/A
SeeGull API	2.3.4.2
eICD	2.1.4.0

SUPPORTED OPTIONS

Option Code in Hex	Description
CDMA/EV-DO	
0001 0003	IS-95
0003 0003	IS-95 Pilot
0001 0005	IS-2000
0003 0005	IS-2000 Pilot
0001 0006	IS-856
0003 0006	IS-856 Pilot
Misc.	
0001 0000	GPS Navigation
0003 0000	Spectrum Analysis
0005 0000	Absolute Time Stamp

SUPPORTED CONFIGURATIONS

Part Number	RF Board	Band Number	Band Supported	Protocol
06134	1	1	200 PCS	CDMA/EVDO
		2	100 Ame 800	CDMA/EVDO
06135	1	1	200 PCS	CDMA/EVDO
		2	100 Ame 800	CDMA/EVDO
	2	3	200 PCS	CDMA/EVDO
		4	100 Ame 800	CDMA/EVDO
06136	1	1	200 PCS	CDMA/EVDO
		2	201 PCS-Rev	CDMA/EVDO
	2	3	101 Ame 800-Rev	CDMA/EVDO
		4	100 Ame 800	CDMA/EVDO
06137	1	1	200 PCS	CDMA
		2	100 Ame 800	CDMA
06138	1	1	200 PCS	EVDO
		2	100 Ame 800	EVDO
06139	1	1	AWS	CDMA
		2	N/A	
06153	1	1	AWS	CDMA/EVDO
		2	N/A	
06154	1	1	Ext PCS	CDMA/EVDO
		2	N/A	
06155	1	1	Ext PCS	CDMA
		2	N/A	

The release details and history are detailed in the following sections.

FEATURES

- AWS (2110-2155MHz) and Extended PCS (1930-1995MHz) Forward Band Support
- CDMA TopN
- EVDO TopN
- Spectrum Analysis
- RSSI

KNOWN PROBLEMS IDENTIFIED IN THIS RELEASE

- [2432] Spectrum Analysis 5kHz Resolution BW mean error differs by approximately 0.8dB compared to all other Resolution BW supported

PROBLEMS RESOLVED IN THIS RELEASE

- [2466] Only Pilot Ec/Io values greater than User PN Threshold +0.7 dB reported in CDMA Top N Scanning

THE FOLLOWING MESSAGES ARE SUPPORTED IN THIS VERSION**EX General Messages**

- Error Message
- Inquiry Message
- Available Options Message
- Reset Message.

EX Scan Messages

- TopN Scan Message.
- RSSI Scan Message.
- Spectrum Analysis Scan Message
- Immediate TopN Scan Message
- Immediate RSSI Scan Message
- Stop Scan Message.

EX Information Messages

- Get Product Information Message
- Channel to Frequency Message
- Frequency to Channel Message

EX Other Messages

- Get GPS Position Message

NOTES

- None

2.2 SeeGull EX CDMA/EV-DO Release 1.0.2 (April 2009)

SCANNER COMPONENT VERSIONS

File Name	Version
Supported Digital boards	700050-03
Supported RF boards	700049-02 700049-18 700049-19
EX DSP	0.0.6.46
EX Embedded SW	2.1.0.22
Boot Loader	3.12.0.0
Clock Card Embedded SW	12.8
Digital Logic	0.0.7.50
Logic Device ID	N/A
SeeGull API	2.3.3.1
eICD	2.1.0.1

SUPPORTED OPTIONS

Option Code in Hex	Description
0001 0003	IS-95
0003 0003	IS-95 Pilot
0001 0005	IS-2000
0003 0005	IS-2000 Pilot
0001 0006	IS-856
0003 0006	IS-856 Pilot
Misc.	
0001 0000	GPS Navigation
0003 0000	Spectrum Analysis
0005 0000	Absolute Time Stamp



SUPPORTED CONFIGURATIONS

Part Number	RF Board	Band Number	Band Supported	Protocol
06134	1	1	200 PCS	CDMA/EVDO
		2	100 Ame 800	CDMA/EVDO
06135	1	1	200 PCS	CDMA/EVDO
		2	100 Ame 800	CDMA/EVDO
	2	3	200 PCS	CDMA/EVDO
		4	100 Ame 800	CDMA/EVDO
06136	1	1	200 PCS	CDMA/EVDO
		2	201 PCS-Rev	CDMA/EVDO
	2	3	101 Ame 800-Rev	CDMA/EVDO
		4	100 Ame 800	CDMA/EVDO
06137	1	1	200 PCS	CDMA
		2	100 Ame 800	CDMA
06138	1	1	200 PCS	EVDO
		2	100 Ame 800	EVDO

The release details and history are detailed in the following sections.

FEATURES

- CDMA TopN
- EVDO TopN
- Spectrum Analysis
- RSSI
- Additional configuration supported (see Part Number 06134 above)

KNOWN PROBLEMS IDENTIFIED IN THIS RELEASE

- None

PROBLEMS RESOLVED IN THIS RELEASE

- Defect# 2283 Scanner sends out “Device Error” every 30 seconds when certain Spectrum Analysis measurement is requested.

THE FOLLOWING MESSAGES ARE SUPPORTED IN THIS VERSION

EX General Messages

- Error Message
- Inquiry Message
- Available Options Message
- Reset Message.

EX Scan Messages

- TopN scan message.
- RSSI scan message.
- Spectrum Analysis scan message.
- Immediate TopN scan message
- Immediate RSSI scan message
- Stop Scan Message.

EX Information Messages

- Get Product Information Message
- Channel to Frequency Message
- Frequency to Channel Message

EX Other Messages

- Get GPS Position Message

NOTES

- None

2.3 SeeGull EX CDMA/EV-DO Release 1.0.1 (December 2008)

SCANNER COMPONENT VERSIONS

File Name	Version
Supported Digital boards	700050-03
Supported RF boards	700049-02 700049-18 700049-19
EX DSP	0.0.6.45
EX Embedded SW	2.1.0.21
Boot Loader	3.12.0.0
Clock Card Embedded SW	12.8
Digital Logic	0.0.7.50
Logic Device ID	N/A
SeeGull API	2.3.3.1
eICD	2.1.0.0

SUPPORTED OPTIONS

Option Code in Hex	Description
0001 0003	IS-95
0003 0003	IS-95 Pilot
0001 0005	IS-2000
0003 0005	IS-2000 Pilot
0001 0006	IS-856
0003 0006	IS-856 Pilot
Misc.	
0001 0000	GPS Navigation
0003 0000	Spectrum Analysis
0005 0000	Absolute Time Stamp

SUPPORTED CONFIGURATIONS

Part Number	RF Board	Band Number	Band Supported	Protocol
06134	1	1	200 PCS	CDMA/EVDO
		2	100 Ame 800	CDMA/EVDO
06135	1	1	200 PCS	CDMA/EVDO
		2	100 Ame 800	CDMA/EVDO
	2	3	200 PCS	CDMA/EVDO
		4	100 Ame 800	CDMA/EVDO
06136	1	1	200 PCS	CDMA/EVDO
		2	201 PCS-Rev	CDMA/EVDO
	2	3	101 Ame 800-Rev	CDMA/EVDO
		4	100 Ame 800	CDMA/EVDO

The release details and history are detailed in the following sections.

FEATURES

- CDMA TopN
- EVDO TopN
- Spectrum Analysis
- RSSI

KNOWN PROBLEMS IDENTIFIED IN THIS RELEASE

- None

PROBLEMS RESOLVED IN THIS RELEASE

- Default value for pilot delay is fixed to 0x7FFF to be consistent with eICD
- Fix Temperature problem which gets wrong temperature for different boards
- Adjust EVDO Aggregated Ec/Io to be consistent with Ec/Io
- Updated RSSI Wide reporting threshold to -120dBm

THE FOLLOWING MESSAGES ARE SUPPORTED IN THIS VERSION

EX General Messages

- Error Message
- Inquiry Message
- Available Options Message
- Reset Message.

EX Scan Messages

- TopN scan message.
- RSSI scan message.
- Spectrum Analysis scan message.
- Immediate TopN scan message
- Immediate RSSI scan message
- Stop Scan Message.

EX Information Messages

- Get Product Information Message
- Channel to Frequency Message
- Frequency to Channel Message

EX Other Messages

- Get GPS Position Message
- Get Temperature Message

NOTES

- None

2.4 SeeGull EX CDMA/EV-DO Beta Pre-Release 1.0 (October 2008)

COMPONENT VERSIONS

File Name	Version
Supported Digital boards	700050-03
Supported RF boards	RF1: 700049-19
EX DSP	0.0.6.40
EX Embedded SW	2.1.0.17
Boot Loader	3.12.0.0
Clock Card Embedded SW	12.8
Digital Logic	0.0.7.50
Logic Device ID	N/A
SeeGull API	2.3.0.0
eICD	2.0.5.5

FEATURES

- CDMA TopN
 - Ec/Io dynamic range: -28 dB
 - Acquisition Speed <= 500 ms
 - Scan speed

No. of pilots	Scan speed
1-5	26.7 ms
6-10	40.0 ms
11-16	53.4 ms
17-32	106.8 ms

- EVDO TopN
 - Ec/Io dynamic range: -18 dB
 - Acquisition Speed <= 500 ms
 - Scan speed

No. of pilots	Scan speed
1-5	53.4 ms
6-10	53.4 ms
11-16	53.4 ms
17-32	80.0 ms

- Spectrum Analysis
 - supports absolute time stamp
- RSSI



SeeGull® EX CDMA/EVDO Product Release Notes

KNOWN PROBLEMS IDENTIFIED IN THIS RELEASE

- None

PROBLEMS RESOLVED IN THIS RELEASE

- Unit is not calibrated
- When run RSSI with other scans, scanner software may crash
- When number of pilots is requested other than 32, CDMA TopN may not reported from the strongest pilots.
- When TopN is running concurrently across RF path1 & 2 , pilots may not be detected occasionally.
- Spectrum analysis reports frequency 15k off.
- TopN reports pilot number i or i+256 inconsistently from time to time for power-on. However, it is consistent after power-on.
- TopN speed is not adjusted to the full speed yet.
- When tested with channel from air, occasionally unable to detect pilots.
- Spectrum Analysis has not reported high resolution time-stamp yet.