

SeeGull® EXflex
GSM/WCDMA/CDMA/EVDO/LTE-FDD/TD-LTE/TD-SCDMA
Product Release Notes

Release 1.4

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1.0 Current Release Notes

SCANNER COMPONENT VERSIONS

File Name	Version
EX DSP	5.0.1.171
EX Embedded SW	0.0.1.34
Boot Loader	3.12.0.0
Clock Card Embedded SW	12.15
Digital Logic	0.0.10.10
RF Logic	10.0.0.15
RF NIOS	0.0.0.57
SeeGull API	2.7.0.0
SeeGull Master API	1.6.0.1
EXflex Product Reference	1.0.1.0 Rev F
SeeGull Assistant	1.4.2.12

SUPPORTED OPTIONS

Option Code in Hex	Description
GSM	
0001 0001	GSM
0002 0001	GSM BSIC
0004 0001	GSM BCCH C/I
0005 0001	GSM BCCH L3 Message Decoding
000B 0001	GSM Blind Scan
WCDMA	
0001 0004	WCDMA
0003 0004	WCDMA Pilot
0005 0004	WCDMA BCH Decoding
0008 0004	WCDMA Extended Pilot Dynamic Range
000B 0004	WCDMA Blind Scan
CDMA	
0001 0003	IS-95
0003 0003	IS-95 Pilot
000B 0003	IS-95 Blind Scan
0001 0005	IS-2000
0003 0005	IS-2000 Pilot
000B 0005	IS-2000 Blind Scan
EVDO	
00010006	IS-856
00030006	IS-856 Pilot
000B 0006	IS-856 Blind Scan
TD-SCDMA	
0001 0008	TD-SCDMA
0003 0008	TD-SCDMA Pilot
000B 0008	TD-SCDMA Blind Scan
LTE-FDD	
0001 000A	LTE-FDD Support
000C 000A	Enhanced LTE Signal Scanning
0005 000A	LTE L3 detection
000B 000A	LTE Blind Scan
TD-LTE	
0001 000B	TD-LTE Support
000C 000B	Enhanced TD- LTE Signal Scanning
000D 000B	TD-LTE Power Analysis
0005 000B	TD-LTE L3 detection
000B 000B	TD-LTE Blind Scan
Misc.	
0001 0000	GPS Navigation
0003 0000	Spectrum Analysis
0005 0000	Absolute Time Stamp
0006 0000	Enhanced Power Scanning

NEW FEATURES

- Blind Scan support blind scan for the following technologies: CDMA, EVDO, GSM, TD-LTE, LTE (FDD) and TDSCDMA.
- Support for additional Resolution Bandwidths (RBW) for Spectrum Analysis: 160 kHz, and 2, 4 and 8 Mhz.
- Support for Layer 3 measurements on TD-LTE and LTE (FDD).
- Support for new bands: E-UTRA bands 23 and 30.

KNOWN PROBLEMS IDENTIFIED IN THIS RELEASE

- [#3674] EPS 50 KHz RBW is inaccurate by approximately 3 dB at certain frequencies at 3.7 Ghz and 1.048 Ghz.
- [#3672] FD-LTE measurement rate at 10 MHz slows down when more than 10 channels are selected
- [#3662] On rare occasion, installed options are not being reported from scanner upon power up. Recycling power corrects this issue.

PROBLEMS RESOLVED IN THIS RELEASE

- None

THE FOLLOWING MESSAGES ARE SUPPORTED IN THIS VERSION

Scanning Messages

- Color Code Scan Message (GSM)
- EPS Scan Message
- Enhanced Top N Signal Scan Message (LTE/TD-LTE)
- Power Analysis Message (TD-LTE)
- RSSI Scan Message
- Spectrum Analysis Scan Message
- Stop Scan Message
- Top N Pilot Scan Message (CDMA/EVDO/TD-SCDMA)
- Top N Pilot Scan Message WCDMA (HS and HD)

General Purpose Messages

- License Inquiry Message. New in EXflex.
- Channel to Frequency/Frequency to Channel Message
- Error Message
- GPS Information Message
- Inquiry Message
- Product Information Message
- Reset Device Message
- Scan Data Drop Message

NOTES

- The bootup time for the EXflex scanner is approximately 30 sec.

2.0 Previous Release Notes

2.1 Release 1.3 (July 26, 2013)

SCANNER COMPONENT VERSIONS

File Name	Version
EX DSP	5.0.1.159
EX Embedded SW	0.0.1.24
Boot Loader	3.12.0.0
Clock Card Embedded SW	12.14
Digital Logic	0.0.10.10
RF Logic	10.0.0.15
RF NIOS	0.0.0.57
SeeGull API	2.6.1.0
SeeGull Master API	1.5.1.2
EXflex Product Reference	1.0.0.1 Rev E
SeeGull Assistant	1.4.2.12

SUPPORTED OPTIONS

Option Code in Hex	Description
GSM	
0001 0001	GSM
0002 0001	GSM BSIC
0004 0001	GSM BCCH C/I
0005 0001	GSM BCCH L3 Message Decoding
WCDMA	
0001 0004	WCDMA
0003 0004	WCDMA Pilot
0005 0004	WCDMA BCH Decoding
0008 0004	WCDMA Extended Pilot Dynamic Range
000B 0004	WCDMA Blind Scan
CDMA	
0001 0003	IS-95
0003 0003	IS-95 Pilot
0001 0005	IS-2000
0003 0005	IS-2000 Pilot
EVDO	
00010006	IS-856
00030006	IS-856 Pilot
TD-SCDMA	
00010008	TD-SCDMA
00030008	TD-SCDMA Pilot
LTE-FDD	
0001 000A	LTE-FDD Support
000C 000A	Enhanced LTE Signal Scanning
TD-LTE	
0001 000B	TD-LTE Support
000C 000B	Enhanced TD- LTE Signal Scanning
000D 000B	TD-LTE Power Analysis
Misc.	
0001 0000	GPS Navigation
0003 0000	Spectrum Analysis
0005 0000	Absolute Time Stamp
0006 0000	Enhanced Power Scanning

NEW FEATURES

- Support for WCDMA BCH Layer 3 Message Decoding.
- Support for new bands: R-GSM-900, TDD 1400 proprietary, E-UTRA bands 10, 22, 29, 31, 33, 35, 36, 37, and 44.

KNOWN PROBLEMS IDENTIFIED IN THIS RELEASE

- [#3674] EPS 50 KHz RBW is inaccurate by approximately 3 dB at certain frequencies at 3.7 Ghz and 1.048 Ghz.
- [#3672] FD-LTE measurement rate at 10 MHz slows down when more than 10 channels are selected
- [#3662] On rare occasion, installed options are not being reported from scanner upon power up. Recycling power corrects this issue.

PROBLEMS RESOLVED IN THIS RELEASE

- [#3694] When the RSSI Scan channel list is greater than 255 channels the loop count is incremented for each response message

THE FOLLOWING MESSAGES ARE SUPPORTED IN THIS VERSION

Scanning Messages

- Color Code Scan Message (GSM)
- EPS Scan Message
- Enhanced Top N Signal Scan Message (LTE/TD-LTE)
- Power Analysis Message (TD-LTE)
- RSSI Scan Message
- Spectrum Analysis Scan Message
- Stop Scan Message
- Top N Pilot Scan Message (CDMA/EVDO/TD-SCDMA)
- Top N Pilot Scan Message WCDMA (HS and HD)

General Purpose Messages

- License Inquiry Message. New in EXflex.
- Channel to Frequency/Frequency to Channel Message
- Error Message
- GPS Information Message
- Inquiry Message
- Product Information Message
- Reset Device Message
- Scan Data Drop Message

NOTES

- The bootup time for the EXflex scanner is approximately 30 sec.

2.2 Release 1.2 (June 25, 2013)

SCANNER COMPONENT VERSIONS

File Name	Version
EX DSP	5.0.1.153
EX Embedded SW	0.0.1.19
Boot Loader	3.12.0.0
Clock Card Embedded SW	12.14
Digital Logic	0.0.10.10
RF Logic	10.0.0.15
RF NIOS	0.0.0.57
SeeGull API	2.6.1.0
SeeGull Master API	1.5.1.2
EXflex Product Reference	1.0.0.0 Rev D
SeeGull Assistant	1.4.2.8

SUPPORTED OPTIONS

Option Code in Hex	Description
GSM	
0001 0001	GSM
0002 0001	GSM BSIC
0004 0001	GSM BCCH C/I
0005 0001	GSM BCCH L3 Message Decoding
WCDMA	
0001 0004	WCDMA
0003 0004	WCDMA Pilot
0008 0004	WCDMA Extended Pilot Dynamic Range
000B 0004	Blind WCDMA
CDMA	
0001 0003	IS-95
0003 0003	IS-95 Pilot
0001 0005	IS-2000
0003 0005	IS-2000 Pilot
EVDO	
00010006	IS-856
00030006	IS-856 Pilot
TD-SCDMA	
00010008	TD-SCDMA
00030008	TD-SCDMA Pilot
LTE-FDD	
0001 000A	LTE-FDD Support
000C 000A	Enhanced LTE Signal Scanning
TD-LTE	
0001 000B	TD-LTE Support
000C 000B	Enhanced TD- LTE Signal Scanning
000D 000B	TD-LTE Power Analysis
Misc.	
0001 0000	GPS Navigation
0003 0000	Spectrum Analysis
0005 0000	Absolute Time Stamp
0006 0000	Enhanced Power Scanning

NEW FEATURES

- Support for TD-SCDMA technology
- Support for WCDMA Blind Scan for TopN high speed and high dynamic range search modes
- GSM Color Code Scanning BCCH Layer 3 Message Decoding datamode

KNOWN PROBLEMS IDENTIFIED IN THIS RELEASE

- [#3694] When the RSSI Scan channel list is greater than 255 channels the loop count is incremented for each response message
- [#3674] EPS 50 KHz RBW is inaccurate by approximately 3 dB at certain frequencies at 3.7 Ghz and 1.048 Ghz.
- [#3672] FD-LTE measurement rate at 10 MHz slows down when more than 10 channels are selected
- [#3662] On rare occasion, installed options are not being reported from scanner upon power up. Recycling power corrects this issue.

PROBLEMS RESOLVED IN THIS RELEASE

- [#3693] When the RSSI Scan channel list is greater than 255 channels, the responses are not in order.
- [#3679] LTE Enhanced TopN Signal scanning instability if GPS is not connected to the device

THE FOLLOWING MESSAGES ARE SUPPORTED IN THIS VERSION

Scanning Messages

- Color Code Scan Message (GSM)
- EPS Scan Message
- Enhanced Top N Signal Scan Message (LTE/TD-LTE)
- Power Analysis Message (TD-LTE)
- RSSI Scan Message
- Spectrum Analysis Scan Message
- Stop Scan Message
- Top N Pilot Scan Message (CDMA/EVDO/TD-SCDMA)
- Top N Pilot Scan Message WCDMA (HS and HD)

General Purpose Messages

- License Inquiry Message. New in EXflex.
- Channel to Frequency/Frequency to Channel Message
- Error Message
- GPS Information Message
- Inquiry Message
- Product Information Message
- Reset Device Message
- Scan Data Drop Message

NOTES

- The bootup time for the EXflex scanner is approximately 30 sec.

2.3 Release 1.1 (May 17, 2013)

SCANNER COMPONENT VERSIONS

File Name	Version
EX DSP	5.0.1.133
EX Embedded SW	0.0.1.8
Boot Loader	3.12.0.0
Clock Card Embedded SW	12.13
Digital Logic	0.0.10.9
RF Logic	10.0.0.12
RF NIOS	0.0.0.57
SeeGull API	2.6.1.0
SeeGull Master API	1.5.1.2
EXflex Product Reference	1.0.0.0 Rev D
SeeGull Assistant	1.4.2.8

SUPPORTED OPTIONS

Option Code in Hex	Description
GSM	
0001 0001	GSM
0002 0001	GSM BSIC
0004 0001	GSM BCCH C/I
WCDMA	
0001 0004	WCDMA
0003 0004	WCDMA Pilot
0008 0004	WCDMA Extended Pilot Dynamic Range
CDMA	
0001 0003	IS-95
0003 0003	IS-95 Pilot
0001 0005	IS-2000
0003 0005	IS-2000 Pilot
EVDO	
00010006	IS-856
00030006	IS-856 Pilot
LTE-FDD	
0001 000A	LTE-FDD Support
000C 000A	Enhanced LTE Signal Scanning
TD-LTE	
0001 000B	TD-LTE Support
000C 000B	Enhanced TD- LTE Signal Scanning
000D 000B	TD-LTE Power Analysis
Misc.	
0001 0000	GPS Navigation
0003 0000	Spectrum Analysis
0005 0000	Absolute Time Stamp
0006 0000	Enhanced Power Scanning

NEW FEATURES

- Support for EV-DO technology

KNOWN PROBLEMS IDENTIFIED IN THIS RELEASE

- [#3674] EPS 50 KHz RBW is inaccurate by approximately 3 dB at certain frequencies at 3.7 Ghz and 1.048 Ghz.
- [#3672] FD-LTE measurement rate at 10 MHz slows down when more than 10 channels are selected
- [#3662] On rare occasion, installed options are not being reported from scanner upon power up. Recycling power corrects this issue.

PROBLEMS RESOLVED IN THIS RELEASE

- [#3673] RSSI measurement indicates -15 dBm for a -20 dBm input on EU 41 L.
- [#3663] RSSI measurements for LTE 10, 15 and 20 MHz are reporting incorrect values.
- [#3661] The RSSI measurement is inaccurate by about 1 dB at certain cellular frequencies at -20 dBm input.
- [#3660] EPS power measurement at 1070 MHz is inaccurate by up to 4 dB.

THE FOLLOWING MESSAGES ARE SUPPORTED IN THIS VERSION

Scanning Messages

- Color Code Scan Message (GSM)
- EPS Scan Message
- Enhanced Top N Signal Scan Message (LTE/TD-LTE) 1.4/3/5/10/15/20 MHz.
- Power Analysis Message (TD-LTE)
- RSSI Scan Message
- Spectrum Analysis Scan Message
- Stop Scan Message
- Top N Pilot Scan Message (CDMA/EVDO)
- Top N Pilot Scan Message WCDMA (HS and HD)

General Purpose Messages

- License Inquiry Message. New in EXflex.
- Channel to Frequency/Frequency to Channel Message
- Error Message
- GPS Information Message
- Inquiry Message
- Product Information Message
- Reset Device Message
- Scan Data Drop Message

NOTES

- The bootup time for the EXflex scanner is approximately 30 sec.

2.4 Release 1.0 (April 26, 2013)

SCANNER COMPONENT VERSIONS

File Name	Version
EX DSP	5.0.1.127
EX Embedded SW	0.0.1.5
Boot Loader	3.12.0.0
Clock Card Embedded SW	12.13
Digital Logic	0.0.10.9
RF Logic	10.0.0.12
RF NIOS	0.0.0.55
SeeGull API	2.6.1.0
SeeGull Master API	1.5.1.2
EXflex Product Reference	1.0.0.0

SUPPORTED OPTIONS

Option Code in Hex	Description
GSM	
0001 0001	GSM
0002 0001	GSM BSIC
0004 0001	GSM BCCH C/I
WCDMA	
0001 0004	WCDMA
0003 0004	WCDMA Pilot
0008 0004	WCDMA Extended Pilot Dynamic Range
CDMA	
0001 0003	IS-95
0003 0003	IS-95 Pilot
0001 0005	IS-2000
0003 0005	IS-2000 Pilot
LTE-FDD	
0001 000A	LTE-FDD Support
000C 000A	Enhanced LTE Signal Scanning
TD-LTE	
0001 000B	TD-LTE Support
000C 000B	Enhanced TD- LTE Signal Scanning
000D 000B	TD-LTE Power Analysis
Misc.	
0001 0000	GPS Navigation
0003 0000	Spectrum Analysis
0005 0000	Absolute Time Stamp
0006 0000	Enhanced Power Scanning

NEW FEATURES

- This is the first release of EXflex multi-technology variable band scanning receiver.
- The EXflex scanner supports Spectrum Analysis and Enhanced Power Measurement scan on the entire 300 MHz to 3.8 GHz spectrum.

KNOWN PROBLEMS IDENTIFIED IN THIS RELEASE

- [#3663] RSSI measurements for LTE 10, 15 and 20 MHz are reporting incorrect values.
- [#3662] On rare occasion, installed options are not being reported from scanner upon power up. Recycling power corrects this issue.
- [#3661] The RSSI measurement is inaccurate by about 1 dB at certain cellular frequencies at -20 dBm input.
- [3660] EPS power measurement at 1070 MHz is inaccurate by up to 4 dB.

PROBLEMS RESOLVED IN THIS RELEASE

- None.

THE FOLLOWING MESSAGES ARE SUPPORTED IN THIS VERSION

Scanning Messages

- Color Code Scan Message (GSM)
- EPS Scan Message
- Enhanced Top N Signal Scan Message (LTE/TD-LTE) 1.4/3/5/10/15/20 MHz.
- Power Analysis Message (TD-LTE)
- RSSI Scan Message
- Spectrum Analysis Scan Message
- Stop Scan Message
- Top N Pilot Scan Message (CDMA/EVDO)
- Top N Pilot Scan Message WCDMA (HS and HD)

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