

DCODE PRO

Controller System for Unparalleled Cellular Network Survey and Characterization

DCode Pro is a Feature Rich Network Analysis and Characterization Software Program Optimized for Data Collection at High Rates of Speed and Rapid Visualization

DCode Pro is a specialized software program that demodulates cellular and wireless signals including 5G, LTE WiMAX, WCDMA, CDMA, EVDO, GSM, Wi-Fi and Bluetooth, depending on the ICS model and optional add-ons. DCode Pro includes onboard analytical tools to assist users with real time processing and utilization of data.

DCode Pro is exclusive to the ICS family of survey and network characterization tools which pairs a feature rich software suite with industry leading radios in the ICS and Q-Fi systems. These tools produce network information at the speed of operations. This pairing of elite radios with the right software creates a tool that provides the operator a complete understanding of the networks.

Each protocol can be activated individually or simultaneously for specialized applications. The operator has the flexibility to set-up any protocol from the Configuration Manager which makes for a more user-friendly package. While scanning and collecting network data on protocols for the area of interest, the User can cycle from band to band at the push of a button or can select specific bands from the interface.

Optimized for multi-protocol, multi-band cellular survey at high rates of speed, DCode Pro is the ideal cellular drive test software. Highlighted features of the DCode Pro software include:



Geofencing is a data file management tool that allows the user to create pre-defined geographic boundaries where the ICS will collect data. It is a must have feature for long range UAS air surveys.



Spectrum Viewer is a single intuitive display that presents a RF spectral display and identifies various cellular modulation types, signals, and interferences.



Rogue Cell Detection will alert the user to the possibility of a rogue cell operating in the survey area. DCode will passively detect these devices and assign a confidence score to each discovery.



Passive Basestation Locator (PBL) provides the geographic positions of cellular sectors from ground or airborne surveys.



This item is subject to the EAR. Accordingly, an export authorization may be required for certain clients, uses, and/or destinations. The time required to obtain an authorization may impact international delivery.



Features

- Multi-Protocol, multi-band operations
- Cycle protocols and bands with the push of a button
- Complete decoding of control channel messages
- Self-Configuring
- Active tool configuration
- L3 logging and parsing
- Provider filtering
- Capable of surveying both fixed wireless access (FWA) and mobile access
- Geo-Fencing
- Log File Data Decimation
- Rogue BTS detection
- Base Station location estimation

Configurations

- GSM
- CDMA
- WCDMA
- EVDO
- LTE
- WiMAX
- Wi-Fi (with add-on Q-Fi module)
- 5G NR
 - < 6 GHz
 - mmWave (with optional Downconverter)

Current Supported Bands

5G LTE Support				WCDMA (3GPP 25.101 v9.10)		LTE Support (3GPP TS 36.101 v10.3.0)	
Band	Duplex Mode	Freq (MHz)	Common Name	Band Class I -	2100 MHz (IMT-2000)	Band Class 1 -	2100 MHz (IMT)
n1	FDD	2100	IMT	Band Class II -	1900 (PCS)	Band Class 2 -	1900 MHz (PCS)
n2	FDD	1900	PCS	Band Class III -	1800 (DCS)	Band Class 3 -	1800 MHz (DCS)
n3	FDD	1800	DCS	Band Class IV -	AWS-1	Band Class 4 -	AWS-1
n5	FDD	850	CLR	Band Class V -	800 MHz (American Cellular)	Band Class 5 -	850 MHz (CELL)
n7	FDD	2600	IMT-E	Band Class VI -	Japanese 800	Band Class 6 -	UMTS Only
n8	FDD	900	Extended GSM	Band Class VII -	UMTS 2600	Band Class 7 -	2600 MHz (IMT-E)
n12	FDD	700	Lower SMH	Band Class VIII -	European 900 MHz	Band Class 8 -	900 MHz (E-GSM)
n14	FDD	700	Upper SMH	Band Class IX -	Japanese 1800	Band Class 9 -	1800 MHz (JDCS)
n18	FDD	850	Lower 800 (Japan)	Band Class X -	AWS-2	Band Class 10 -	AWS 3
n20	FDD	800	Digital Dividend (EU)	Band Class XIX -	Japanese Extended 800 MHz	Band Class 11 -	1500 MHz Lower PDC
n25	FDD	1900	Extended PCS	Band Class XI -	Japanese 1500 MHz	Band Class 12 -	700 SMH (Lower Block A/B/C)
n26	FDD	850	Extended CLR	CDMA Support (TIA-EIA IS-2000-2C)		Band Class 13 -	700 SMH (Upper Block C)
n28	FDD	700	APT	Band Class 0 -	800 MHz	Band Class 14 -	700 SMH (Upper Block D)
n29	SDL	700	Lower SMH	Band Class 1 -	1900 MHz	Band Class 17 -	700 SMH (Lower Block B/C)
n30	FDD	2300	WCS	Band Class 2 -	TACS	Band Class 18 -	800 MHz Lower (Japan)
n34	TDD	2100	IMT	Band Class 3 -	JTACS	Band Class 19 -	800 MHz Upper (Japan)
n38	TDD	2600	IMT-E	Band Class 4 -	KPCS	Band Class 20 -	800 MHz EU DD
n39	TDD	1900	DCS-IMT Gap	Band Class 5 -	450 MHz	Band Class 21 -	1500 MHz Upper PDC
n40	TDD	2300	S-Band	Band Class 6 -	2 GHz	Band Class 22 -	3500 MHz
n41	TDD	2500	BRS	Band Class 7 -	700 MHz	Band Class 23 -	2000 MHz S-Band (AWS-4)
n46	TDD	5200	U-NII-1-4	Band Class 8 -	1800 MHz	Band Class 24 -	1600 MHz L-Band
n47	TDD	5900	U-NII-4	Band Class 9 -	900 MHz	Band Class 25 -	1900 MHz+ (Extended PCS)
n48	TDD	3500	CBRS (US)	Band Class 10 -	Secondary 800 MHz Band	Band Class 26 -	850 MHz+ (Extended Cell)
n50	TDD	1500	L-Band (EU)	Band Class 11 -	400 MHz European PAMR Band	Band Class 27 -	850 MHz+ SMR
n51	TDD	1500	L-Band Extension (EU)	Band Class 12 -	800 MHz PAMR Band	Band Class 28 -	800 MHz SMR (APAC)
n65	FDD	2100	Extended IMT	Band Class 15 -	2100 MHz AWS-1	Band Class 29 -	700 SMH (Lower D/E)
n66	FDD	1700	Extended AWS	GSM Support (3GPP 45.005 v9.00)		Band Class 30 -	2300 MHz (WCS Block A/B)
n70	FDD	2000	AWS-4	T-GSM 380 -	380 MHz	Band Class 31 -	450 MHz
n71	FDD	600	Digital Dividend (US)	T-GSM 410 -	410 MHz	Band Class 32 -	L Band
n74	FDD	1500	Lower L-Band (US)	GSM 450 -	450 MHz	Band Class 33 -	Pre-IMT
n75	SDL	1500	L-Band (EU)	GSM 480 -	480 MHz	Band Class 34 -	2100 MHz (IMT)
n76	SDL	1500	Extended L-Band (EU)	GSM 710 -	710 MHz	Band Class 35 -	1900 MHz (PCS Uplink)
n77	TDD	3700	C-Band	GSM 750 -	750 MHz	Band Class 36 -	1900 MHz (PCS Downlink)
n78	TDD	3500	C-Band	GSM 810 -	810 MHz	Band Class 37 -	1900 MHz (PCS Duplex Spacing)
n79	TDD	4700	C-Band	GSM 850 -	800 MHz (American Cellular)	Band Class 38 -	2600 MHz (IMT-E Duplex Spacing)
n80	SUL	1800	DCS	P-GSM 900 -	900 MHz (European)	Band Class 39 -	1900 MHz (DCS-IMT Gap)
n81	SUL	900	Extended GSM	E-GSM 900 -	900 MHz (European)	Band Class 40 -	2300 MHz TDD
n82	SUL	800	Digital Dividend (EU)	R-GSM 900 -	900 MHz (European)	Band Class 41 -	2500 MHz BRS/EBS TDD
n83	SUL	700	APT	GSM 1800 -	1800 MHz (DCS)	Band Class 42 -	3500 MHz TDD
n84	SUL	2100	IMT	GSM 1900 -	1900 MHz (PCS)	Band Class 43 -	3700 MHz TDD
n86	SUL	1700	Extended AWS	WiMAX Support (WMF-T23-005-R015v04)		Band Class 44 -	700 MHz APT TDD
n89	SUL	850	CLR	Band Class 1-B	WCS 2300 MHz	Band Class 66 -	AWS Blocks A-J
n90	TDD	2500	BRS	Band Class 3-A	MMDS 2500 MHz	Band Class 71 -	US Digital Television
n91	FDD	800/1500	DD (EU) / L-Band (EU)	Band Class 4-C	INT 3300 MHz	Note: All band classes supported, but may not be enabled, please contact QRC for further information	
n92	FDD	800/1500	DD (EU) / L-Band (EU)	Band Class 5-C	INT-L 3400 MHz		
n93	FDD	900/1500	Extended GSM/ L-Band (EU)	Band Class 5h-C	INT-H 3600 MHz		
n94	FDD	900/1500	Extended GSM / L-Band (EU)	Band Class 5-D	INT-L 3500 MHz		
n95	SUL	2100	IMT	Band Class 5-E	INT-H 3700 MHz		
n96	TDD	6000	U-NII-5-9				
n257	TDD	28,000	LMDS				
n258	TDD	26,000	K-band				
n259	TDD	41,000	V-band				
n260	TDD	39,000	Ka-band				
n261	TDD	28,000	Ka-band				

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