

Infinity TCU Teardown

試読用抜粋レポート

FEATURES:

- Telematics Control Unit
- GSM
- Freescale MC9S12XEQ512VAL, 32-bit, 50MHz



Manufacturer	Continental
Model Number	GNOV1N-DFL
Carrier	China Mobile
Assembled in	Mexico
Retail Price	unknown
Product Release	2015.04.15
Document ID	1119

SPECIFICATIONS

BASIC	Product Name	GSM Car Terminal, GN0V1N-DFL					
	Manufacturer	Continental Automotive Nogales, S.A. de C.V.					
	Minimum Size (mm)	155.1 x 93.7 x 30.3					
	Weight (g)	223					
BATTERY TIME	Standby (hours)	3.9G: FDD-LTE: -	3.9G: TD-LTE: -	3G: WCDMA: -	3G: CDMA: -	3G: TD-SCDMA: -	2G: GSM: ?
	Voice Call (minutes)	3.9G: FDD-LTE: -	3.9G: TD-LTE: -	3G: WCDMA: -	3G: CDMA: -	3G: TD-SCDMA: -	2G: GSM: -
	Video Call (minutes)	-					
	Digital TV (minutes)	-					
	Other	-					
	Battery (size in mm)	-					
SYSTEM	OS	unknown					
	CPU / ROM / RAM	CPU: Freescale MC9S12XEQ512VAL, 32-bit, 50MHz ROM: 8MByte + 1MByte RAM: unknown					
DISPLAY	Main Display	-					
	Sub Display	-					
COMMUNICATION	Protocol (MHz)	3.9G: FDD-LTE: - 3.9G: TD-LTE: - 3G: WCDMA: - 3G: CDMA: - 3G: TD-SCDMA: - 2G: GSM: 900, 1800					
	HSDPA/HSUPA (Mbps)	3G: unknown			LTE: -		
	Wireless LAN	-					
	Bluetooth	-					
	GPS	Yes					
	Infrared	-					
	RFID/NFC	-					
CAMERA	Main Camera	-					
	Sub Camera	-					
SENSOR	Motion	Accelerometer: -	Digital Compass: -	Gyroscope: -	Barometer: -		
		Gesture Recognition: -	-	-	-		
	Ambient	Light Sensor: -	Proximity Sensor: -	Temperature Sensor: -	Humidity Sensor: -		
	Security	Fingerprint Sensor: -	-	-	-		
	Healthcare	Heart Rate Monitor: -					
	Touch Panel	-					
OTHER	HDMI	-					
	MicroSD (max capacity)	-					
	Waterproof/Anti-shock	-					

OUTLOOK / PRODUCT INFORMATION

车载无线终端
 型号: GNOV1N-DFL
 输入: 12V --- 2A
 CMIIT ID: 2010CJ1999
 墨西哥制造
 By Continental Automotive Nogales, S.A. de C.V.





283B0_1MU0B



TYPE NUMBER: GNOV1N - DFL

Model no: ADN07404A3A00



HW: 7404A SW: 05.35R

IMEI: 352200040628737
 Serial no: 04212894



MARKET SYMBOL
PA

Continental 

Assembled in Mexico
 20. Aug. 2013



Top Cover



PCB#1



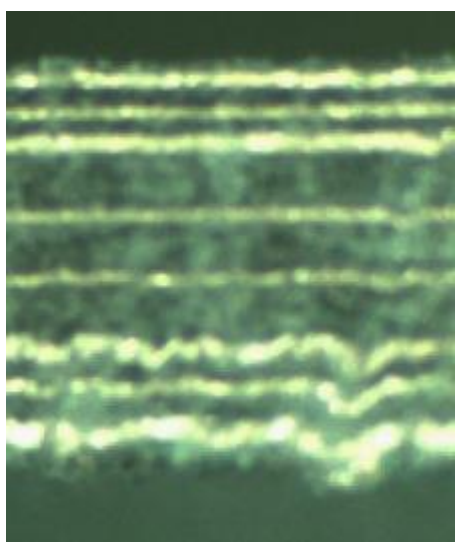
Bottom Cover



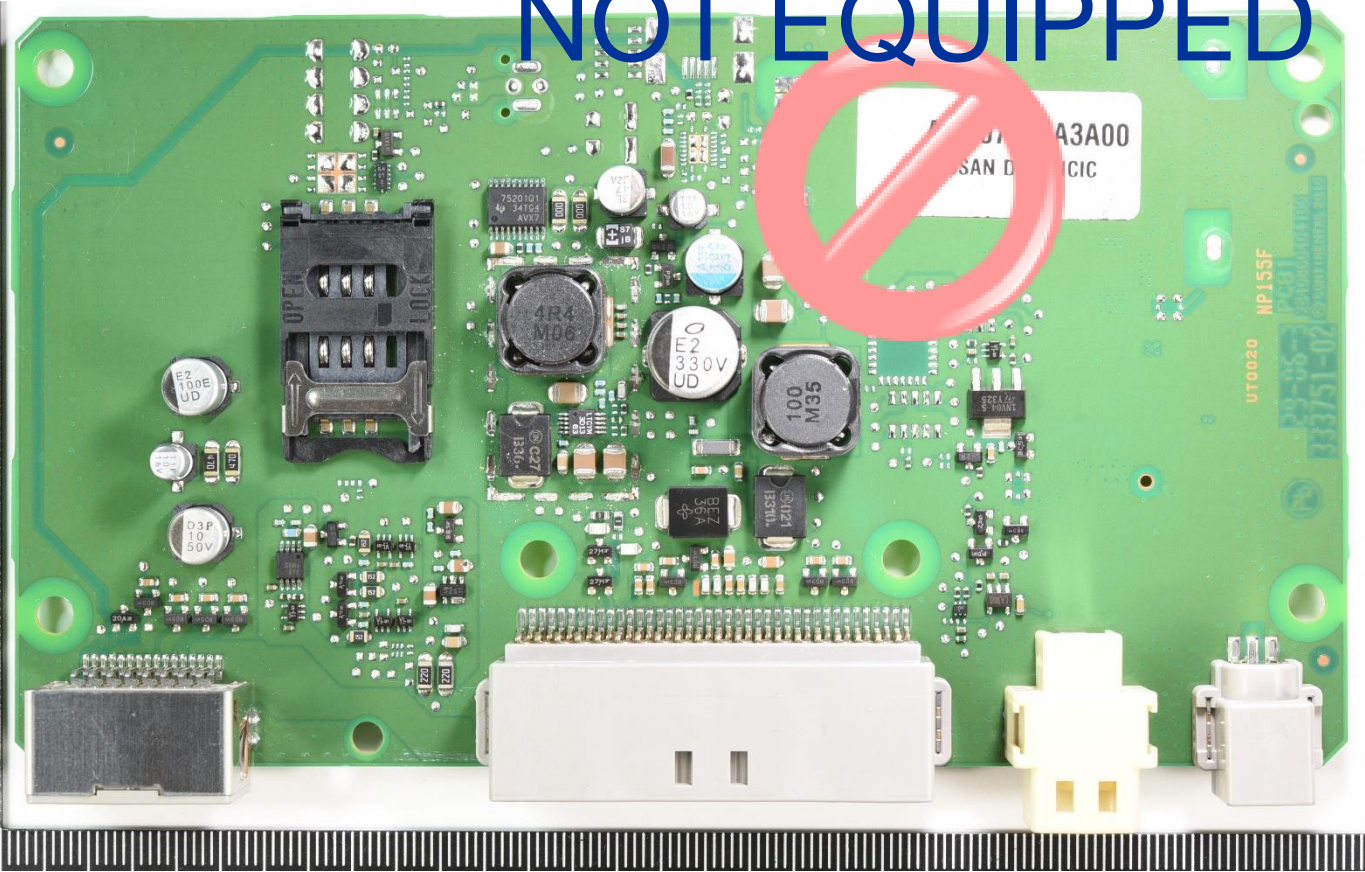
PCB DIMENSION & MARKING

Unit: millimeter otherwise specified

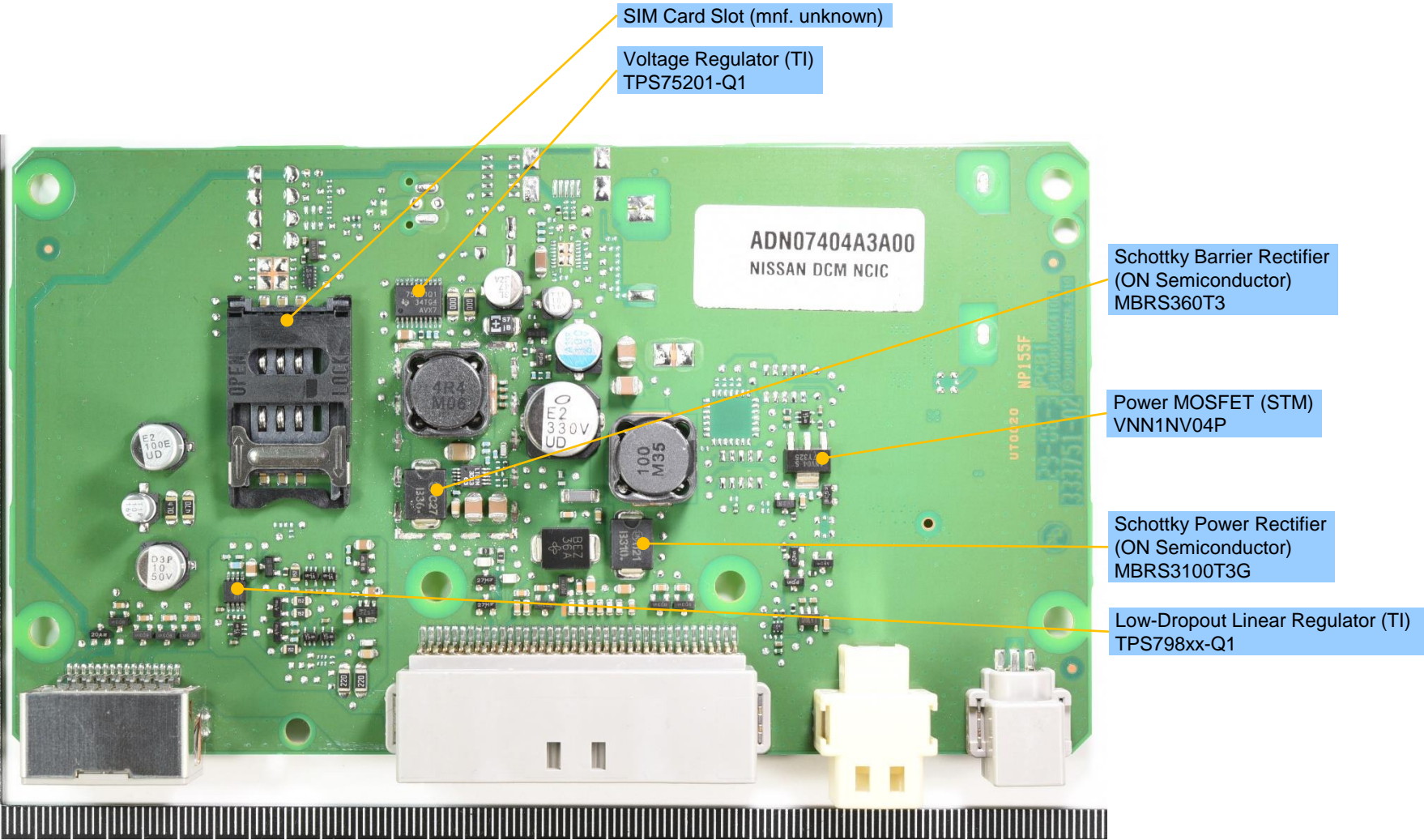
	PCB #1	-	-	-	-	-
Manufacturer	unknown	-	-	-	-	-
Dimension	150.26 x 84.51 x 1.06	-	-	-	-	-
Layer	8	-	-	-	-	-
Connector (pin)	0	-	-	-	-	-
Connector (socket)	4	-	-	-	-	-
Connector (ACF)	0	-	-	-	-	-



NOT EQUIPPED



PCB#1 SIDE A: KEY COMPONENTS



SIM Card Slot (mnf. unknown)

Voltage Regulator (TI)
TPS75201-Q1

Schottky Barrier Rectifier
(ON Semiconductor)
MBRS360T3

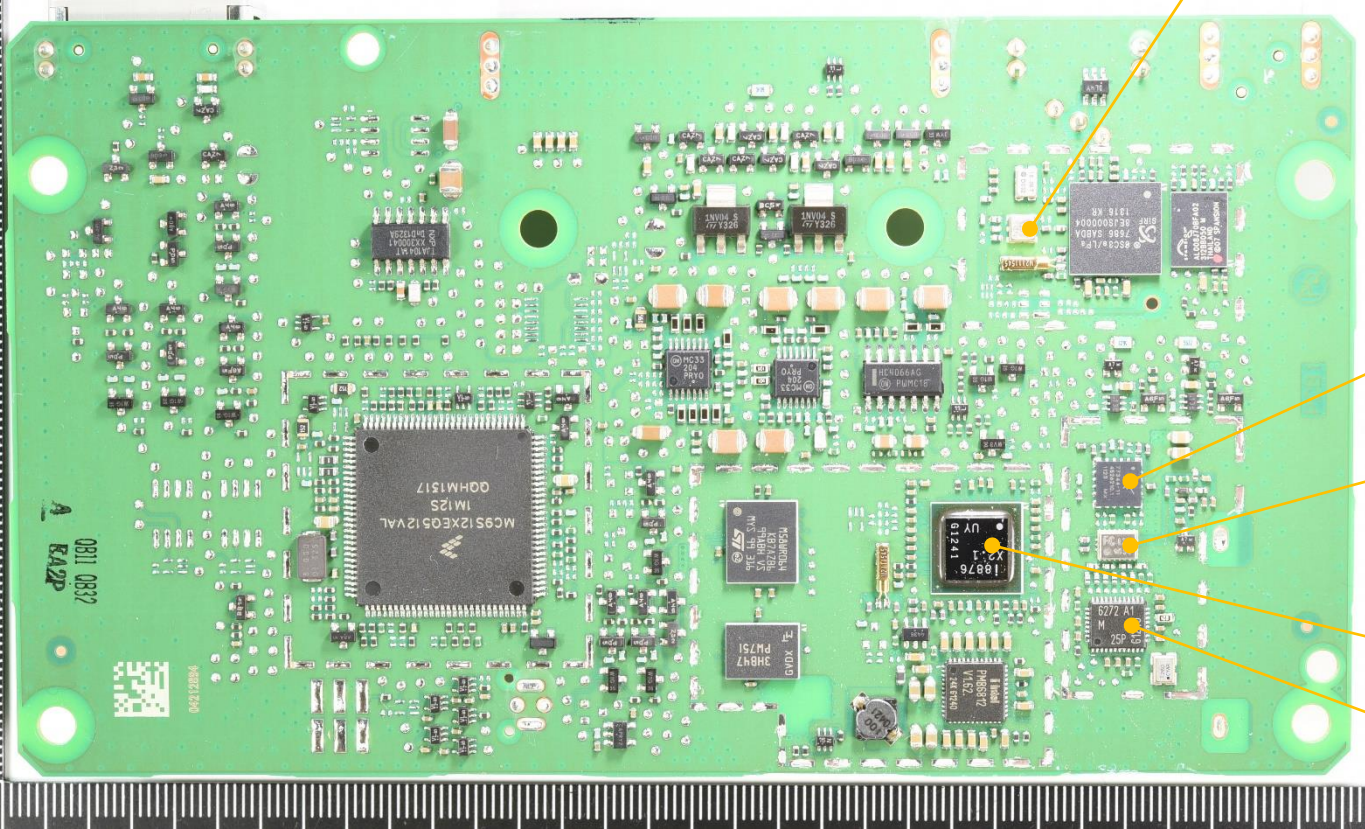
Power MOSFET (STM)
VNN1NV04P

Schottky Power Rectifier
(ON Semiconductor)
MBRS3100T3G

Low-Dropout Linear Regulator (TI)
TPS798xx-Q1

PCB#1 SIDE B: CELLULAR

1 notch = 1mm



Filter for GPS (TDK)
B3522

GSM Power Amplifier (Skyworks)
SKY77344

Front End Module (TDK)
FC 026
8528
(assumption)

Baseband Processor (Infineon)
PMB8876

GSM Transceiver (Infineon)
PMB6272

0811 0832
KA2P

PCB#1 SIDE B: KEY COMPONENTS

High-Speed CAN Transceiver (NXP)
TJA1041

Power MOSFET (STM)
VNN1NV04P

Application Processor
(Freescale)
MC9S12XEQ512VAL

Operational Amplifier
(ON Semiconductor)
MC33204

Quad Analog Switch/Multiplexer/Demultiplexer
(ON Semiconductor)
MC74HC4066A

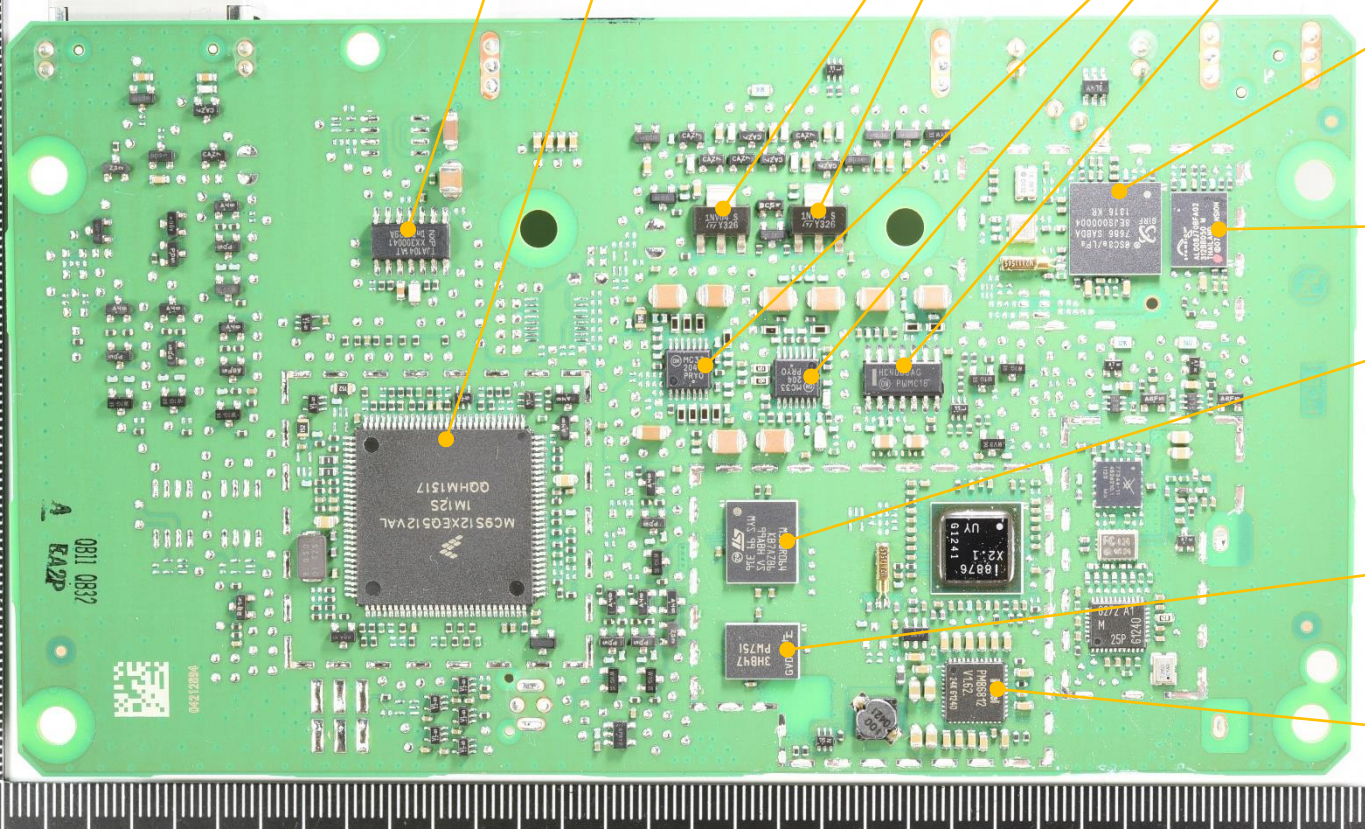
GPS (SiRF)
GSC3e/LPa

Flash Memory (Spansion)
AL008J70BF

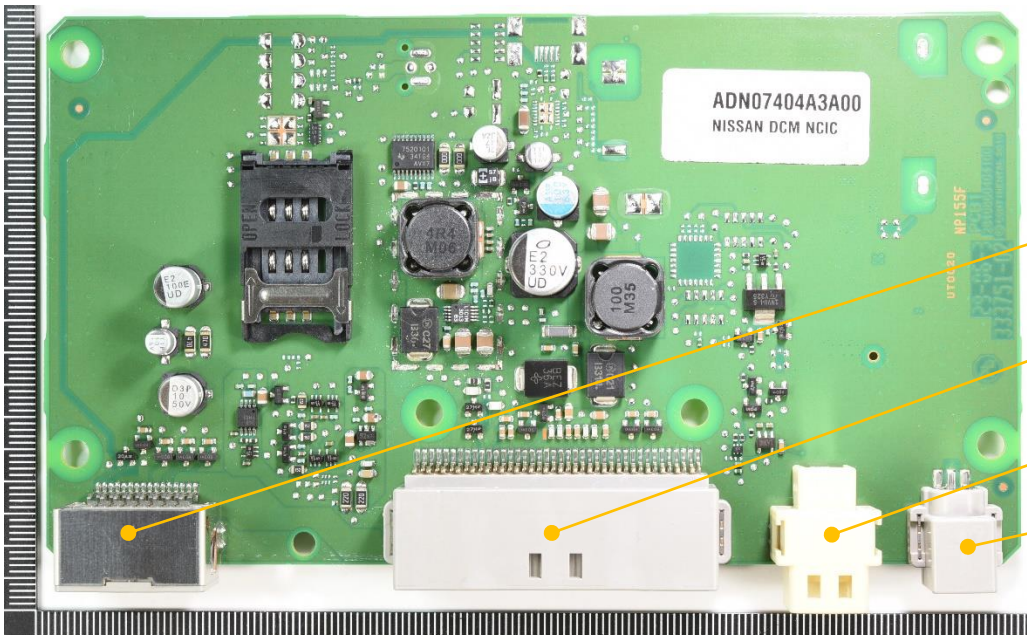
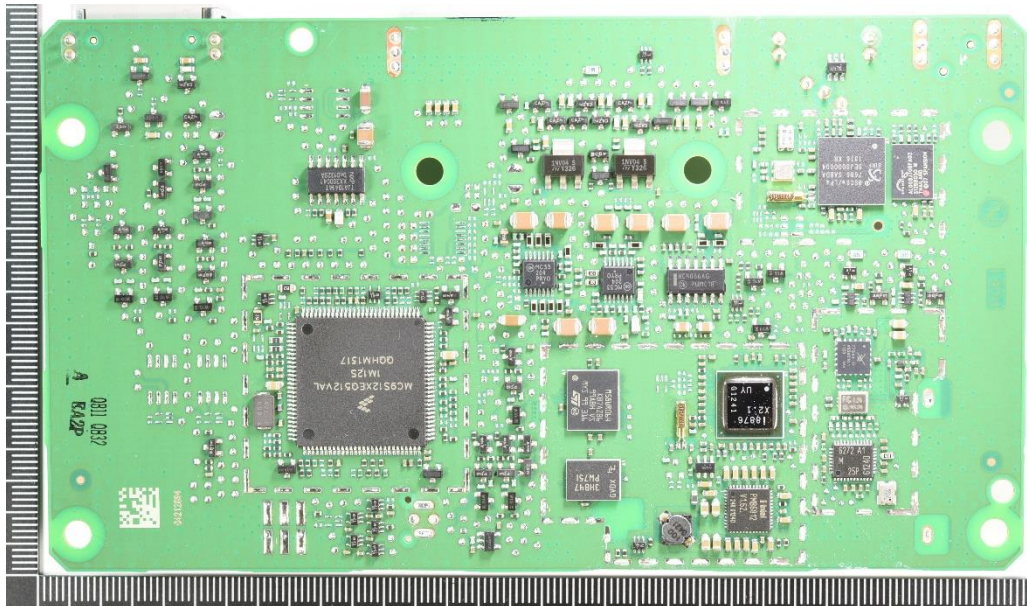
Flash Memory (STM)
M58WR064

DRAM (Micron)
3HB47
PW751
(assumption)

Power Management (Infineon)
PMB6812

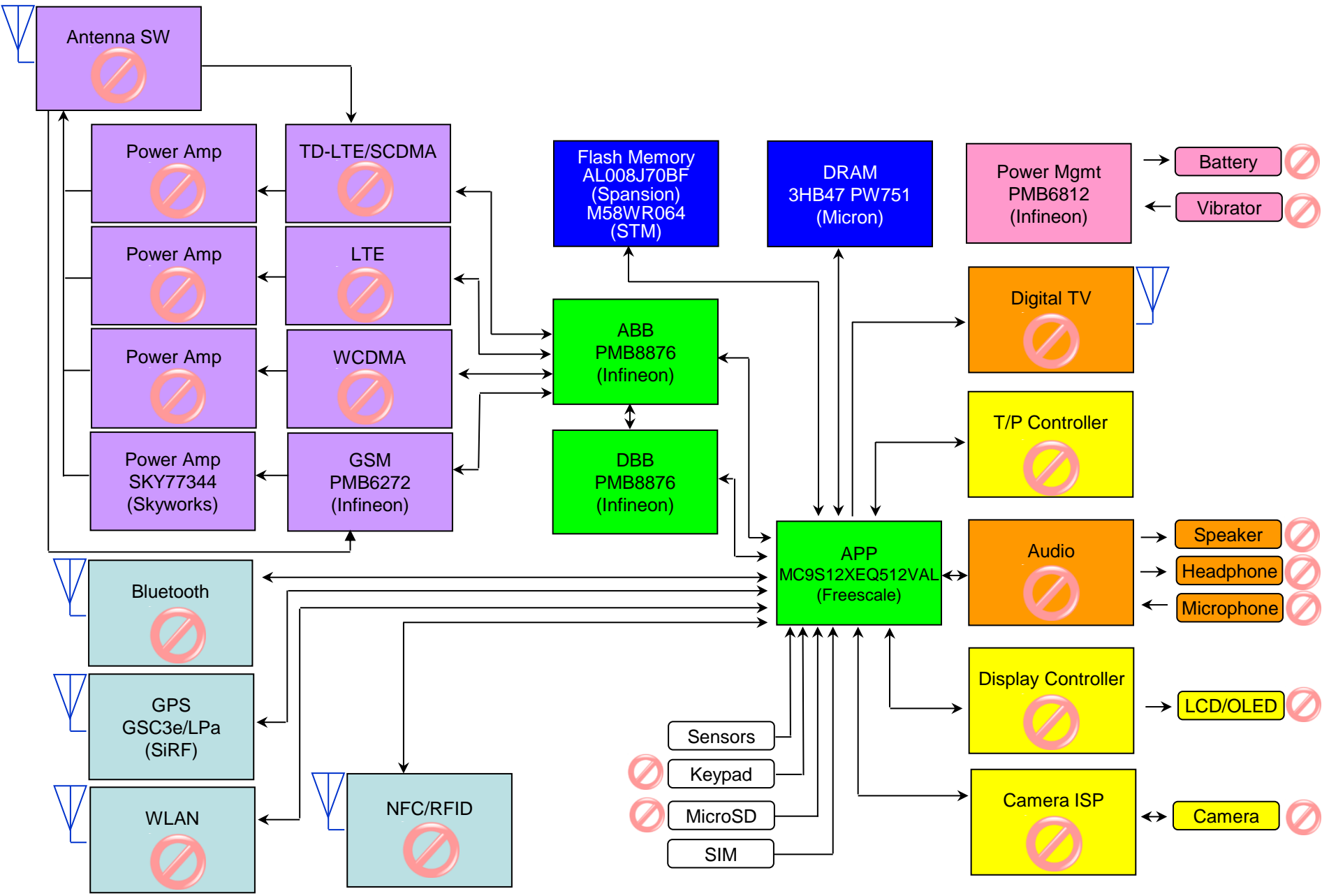


PCB#1: CONNECTORS



Connecting to	Input / Output (GT17HN-16DP C)		
Mnf.	Hirose	L (mm)	14.04
Pin Pitch (mm)	2.00	W (mm)	22.58
Pin #	16	(H) (mm)	13.38
Connecting to	Input / Output (GT25-40DP-2.2H)		
Mnf.	Hirose	L (mm)	18.30
Pin Pitch (mm)	2.20	W (mm)	52.77
Pin #	40	(H) (mm)	12.24
Connecting to	Antenna Port (GT-5E-1P-DS)		
Mnf.	Hirose	L (mm)	21.24
Pin Pitch (mm)	-	W (mm)	15.58
Pin #	1	(H) (mm)	13.80
Connecting to	Antenna Port (GT16C-1P-H)		
Mnf.	Hirose	L (mm)	15.26
Pin Pitch (mm)	-	W (mm)	13.94
Pin #	1	(H) (mm)	12.58

BLOCK DIAGRAM (with assumption)



試読用抜粋レポート

SERVICES

- TEARDOWN: on cellular phone, smartphone, tablet, laptop PC, digital still camera, LCD TV, and other mobile equipments.
- BILL OF MATERIALS: all-component-cost breakdown into more than 100 categories.
- MARKET REPORT: based on requests.
- SEMINAR: based on requests. Free seminars offered to regular subscribers every quarter.
- INTELLECTUAL PROPERTY: old phones available since 1996 up to date. Most of them are functional.

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