

Teardown



▶ Original Video

▶ Begin

Note: Some information may come from other sources. All pictures from uploader unless noted otherwise.

Original Source Information

| | |
|-------------|-------------------------|
| Source | YouTube |
| Uploader | EEVblog |
| Video Name | EEVblog #1286 - Mailbag |
| Posted Date | February 18, 2020 |

Donor Information

| | |
|------------------------|------------|
| Donor | Paul Arden |
| Donor General Location | Australia |

Device Information

| | |
|--------------|--------------------|
| Device Type | Internet of Things |
| Brand | Chumby |
| Device Name | Classic - Pearl |
| Device Model | Unknown |

Post Information

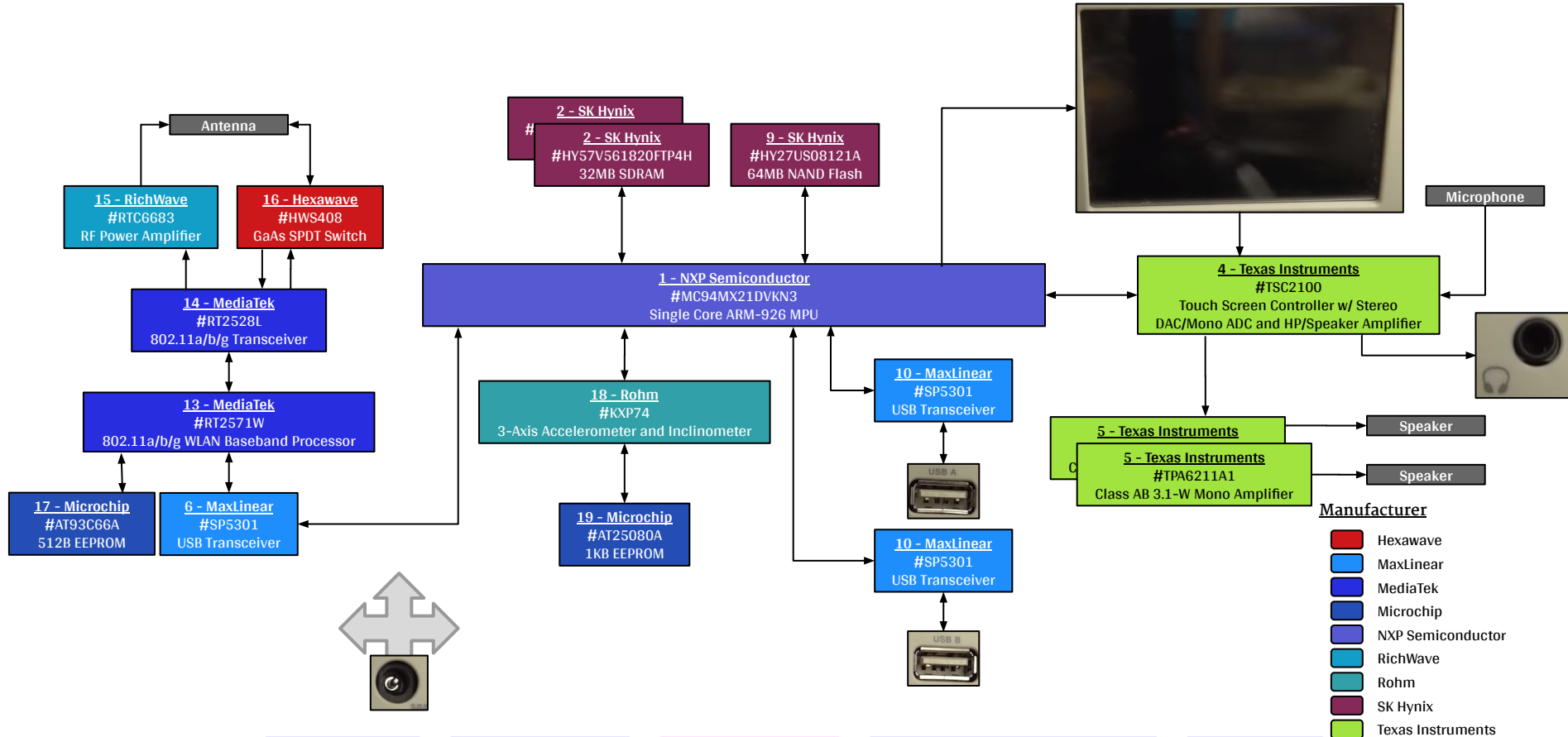
| | |
|-----------|-------------------|
| Post Date | September 2, 2020 |
|-----------|-------------------|

Device Analysis














Design Wins

| Purpose | Manufacturer | Part Number |
|------------------------|-------------------|------------------|
| Applications Processor | NXP Semiconductor | MC94MX21DVKN3 |
| Baseband Processor | MediaTek | RT2571W |
| RAM | SK Hynix | HY57V561820FTP4H |
| NAND Flash | SK Hynix | HY27USo8121A |
| Audio Codec | Texas Instruments | TSC2100 |
| Touchscreen Controller | Texas Instruments | TSC2100 |
| Accelerometer | Rohm | KXP74 |

Block Diagram

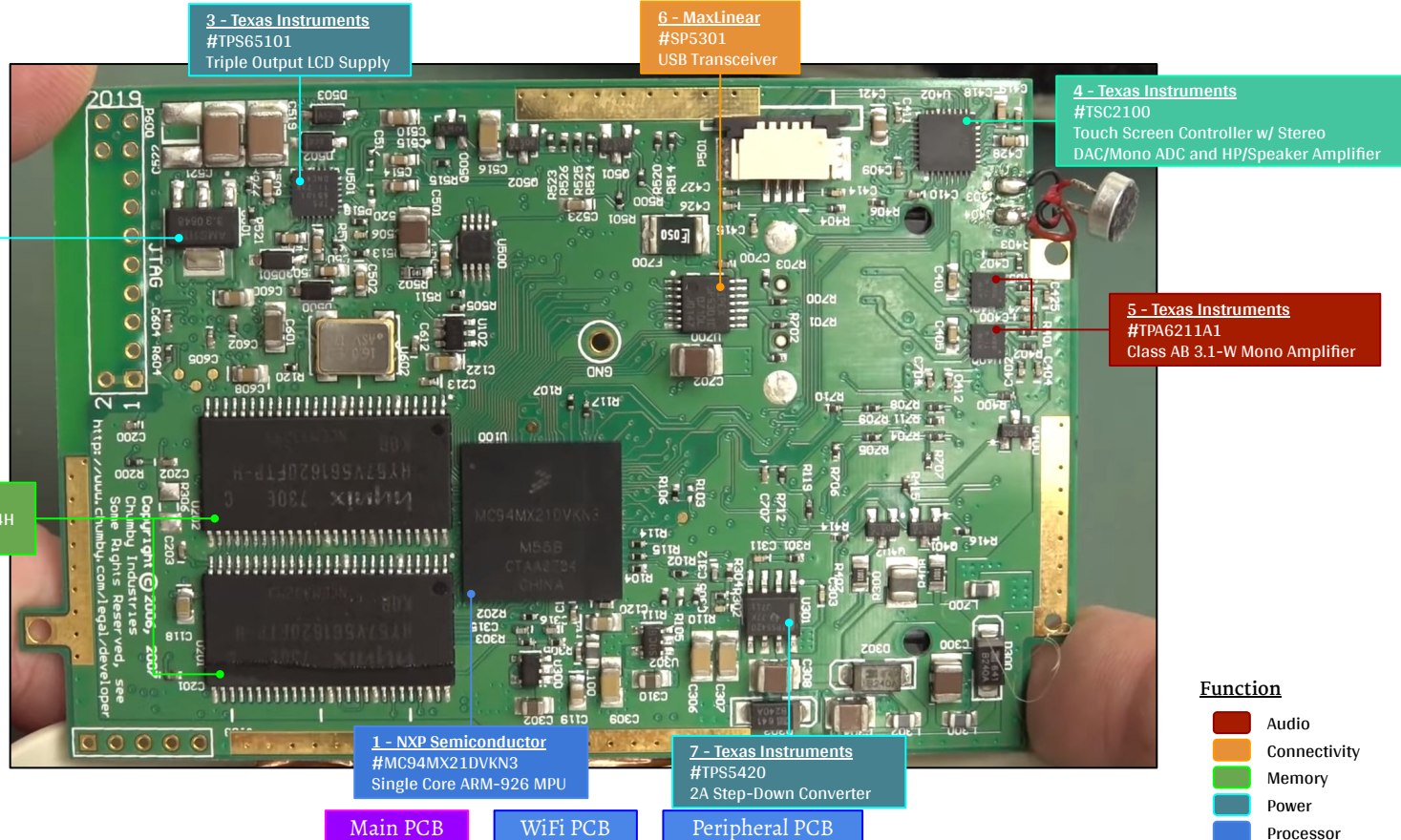


Component Function Guide

| Color | Chip Use | Examples |
|---|---------------------|--|
|  | Audio | Amplifiers/CODECs/Microphones |
|  | Camera/Image | Image Sensors/Video Processors |
|  | Connectivity | Antennas/Bluetooth/GPS/USB/WiFi Stuff |
|  | Display/Touchscreen | Touchscreen/Display Drivers |
|  | Logic | PLDs/FPGAs/Logic Gates |
|  | Memory | EEPROMs/NAND/RAM/SDRAM |
|  | Mixed Signal | DSPs/MCUs |
|  | Power | Battery Protection/Charge Controllers/PMICs/Voltage Regulators |
|  | Processor | Application/Baseband Processors |
|  | Radio Frequency | Radio Frequency/Envelope Tracking Stuff |
|  | Sensor | Accelerometer/Pressure/Temperature |
|  | Other | LED Controllers/Operational Amplifiers |
|  | Unknown | Chips with no predictions of use |

Internals

Main PCB Front IC Identification



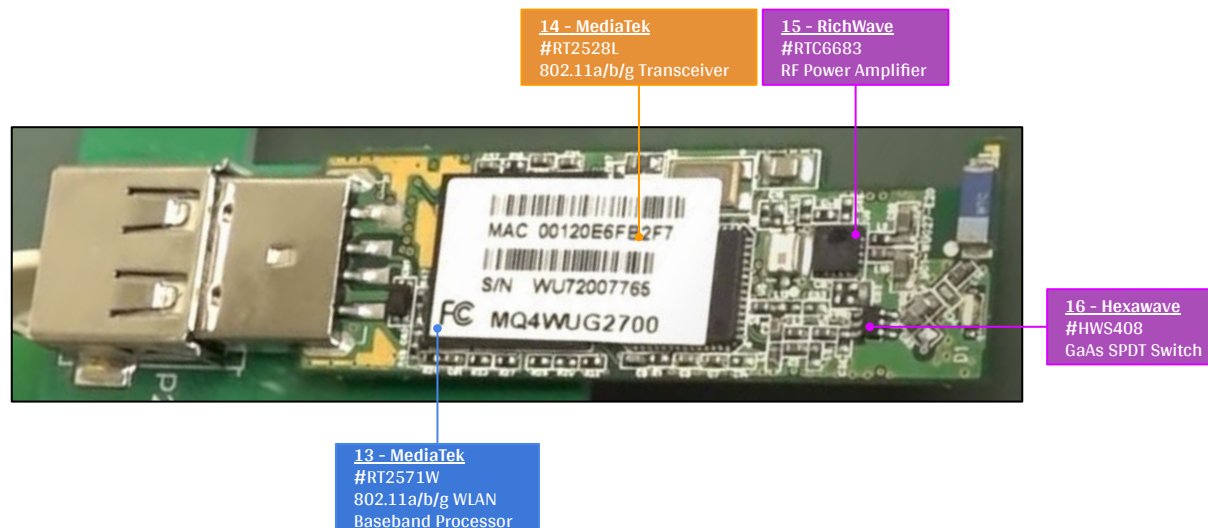
Internals

Main PCB Back IC Identification



Internals

WiFi PCB Front IC Identification

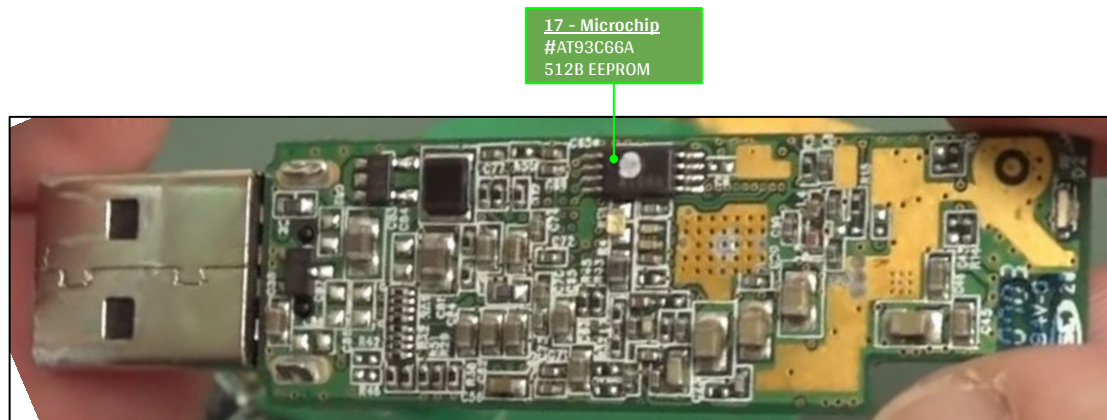


Function

- Connectivity
- Processor
- Radio Frequency

Internals

WiFi PCB Back IC Identification

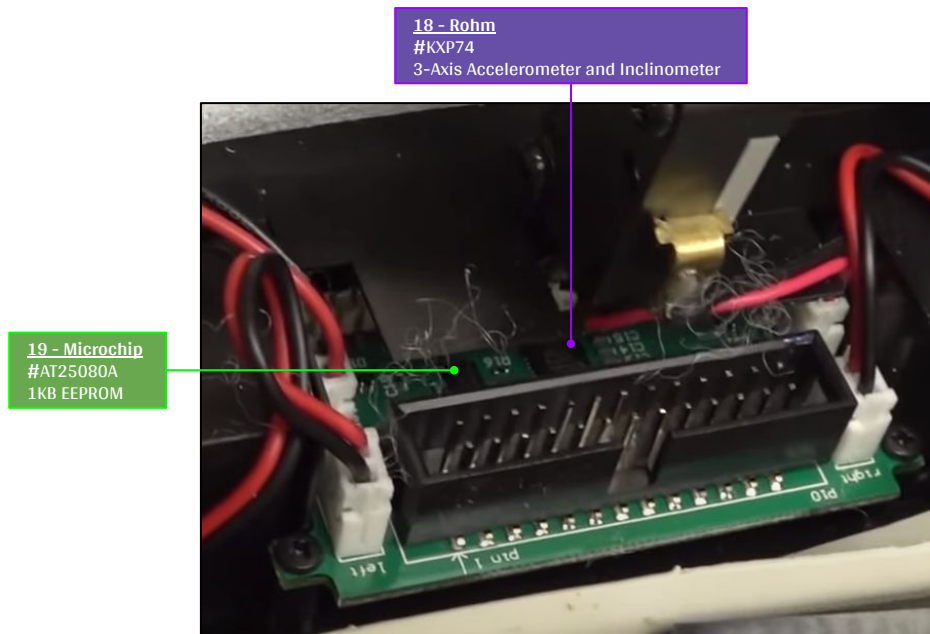


Function

Memory

Internals

Peripheral PCB Front IC Identification



Function

- Memory
- Sensor