

TheBox
DGCI384 UHD
ITU-T J.83A/B/C, UHD
DOCSIS 3.0 & Wi-Fi - eMTA

TECHNICAL SPECIFICATION



SAGEMCOM

20160623

HARDWARE FEATURES

TRANSMISSION STANDARDS

MPEG-2, MPEG-4/H.264, HEVC
IP, ITU-T J.83A/B/C, DOCSIS3.0, Wi-Fi

CABLE FRONT END

CABLE RF INPUT

Full band capture tuner
Input frequency range: up to 1GHz (6-8 MHz BW)
RF input level: -15 to +15 dBmV
RF Impedance 75 Ohm
Return loss : <-8dB
Noise figure : <8dB
Tuning step: 62.5 kHz

OCTAL CABLE DEMODULATOR

ITU-T J.83 A/B/C Demodulator
Waveform QAM 16, 32, 64, 128, 256
Symbol rate 1 to 6.96 MS/s

DATA PORTS

4 x ETHERNET 10/100/ 1000BT
Fully integrated IEEE 802.3/802.3u
10/100/1000 base T- Physical layer
Auto-negotiation 10/100/1000
Full/Half Duplex

USB

2x Host USB 2.0 high speed
1x Host USB 3.0 high speed

1 x VoIP

PROCESSOR AND MEMORIES

STB: Processor: Broadcom 7252S NR
GPU included in the chipset
RAM memory: DDR3 2GB
Flash memory:
NOR SPI: 4MBytes
NAND eMMC: 4GB

DOCSIS INTERNAL BOARD

1x DOCSIS 3.0 modem,
Dual-mode (Euro/US Docsis) 24x8
Broadcom 3384ZU
RAM memory: DDR3 512 Mbytes
Flash memory: NOR SPI 1MB
NAND SLC 256Mbytes

WIFI WLAN

802.11n 2.4GHz 3x3
802.11ac 5GHz 4x4
High Power (FCC compliant)
Dual-band concurrent
Integrated antennas

BLUETOOTH

Bluetooth 4.1 + EDR

VIDEO DECODING

MPEG2

Main Profile @ Low, Main and High Level
Maximum bit rate of 80Mbps
MPEG-4 Part 10 / H.264
Main Profile and High Profile upto 4.2
Maximum bit rate of 80Mbps
HEVC / H.265
Main Profile and Main10 Profile
VP9
8 bit
Maximum bit rate of 40Mbps
VC1
Simple and Main Profile
Advanced Profile @ level3

AUDIO DECODING

Stereo 2.0

MPEG-1 layer I & II
MPEG-2 layer II
MPEG-2 layer III
AAC-LC, HE-AACv1, HE-AACv2
AC3, E-AC3 passthrough or downmixing
WMA9
Multi-channel 5.1
AC3, E-AC3 passthrough
E-AC3 to AC3 transcoding

OUTPUT RESOLUTION / FORMAT

Resolution for UHD broadcast
3840x2160 @ 50/60Hz (progressive)
Unscaled (original format) or scaled
Resolution for HD broadcast
1920x1080 @ 50/60Hz (interlaced)
1280x720 @ 50/60Hz (progressive)
1920x1080 @ 50/60Hz (progressive)
Compatible with 3D mode (HDMI2.0)
Unscaled (original format) or scaled
Resolution for SD broadcast
720x576 @ 50Hz (interlaced)

HDMI OUTPUT

HDMI 2.0a and HDCP 2.2

VIDEO:

RGB 4:2:2 and 4:4:4

AUDIO:

- 2 channels PCM in case of MPEG1-layer II and AAC
- AC3 or PCM in case of AC3 bit stream

- E-AC3, AC3 or PCM in case of E-AC3 bit stream

AUDIO OUTPUT

Audio output (Audio R/L, RCA)

Mono stereo in case of MPEG1 layer II,
2-channel down mix in case of AC3, E-AC3 and DTS
Electrical & optical S/PDIF
2-channel PCM in case of MPEG1-layer II
Originally received bit stream in case of AC3

FRONT PANEL

VFD

IR sensor : 56KHz, SA protocol

3-backlighted-button keyboard:

1 button: stand-by

1 Button for TBD

1 Button for Wifi pairing

REAR PANEL

1 x F type connector (input only)

4 x LAN (ETH 10/100/1000BT) LAN (RJ45)

1 x VoIP (RJ11)

3 x Stereo L/R, S/PDIF (RCA)

1 x optical S/PDIF output (TOS)

1 x HDMI2.0

1 x USB 2.0 (1A) on STB side

1 x USB 3.0 (0.9A) on STB side

1 x USB 2.0 (1A) on GW side

POWER SUPPLY

Main supply voltage 100-120 V ~60 Hz

External 12V AC/DC / 5A adapter

Power (IEC 62087 Ed2): 60W max

MECHANICAL

Colour cabinet: Black

Box Size (wxdxh): 250x210x67mm

Box Operating temp. : . 0°C to +40°C

Packing size: TBD

Weight (Box/Total): TBD/TBD

Storage temperature -25°C to +65°C

Pallet size: TBD

EAN Code: TBD

ACCESSORIES

External AC/DC adapter + US Power cable (1m)

User guide pack

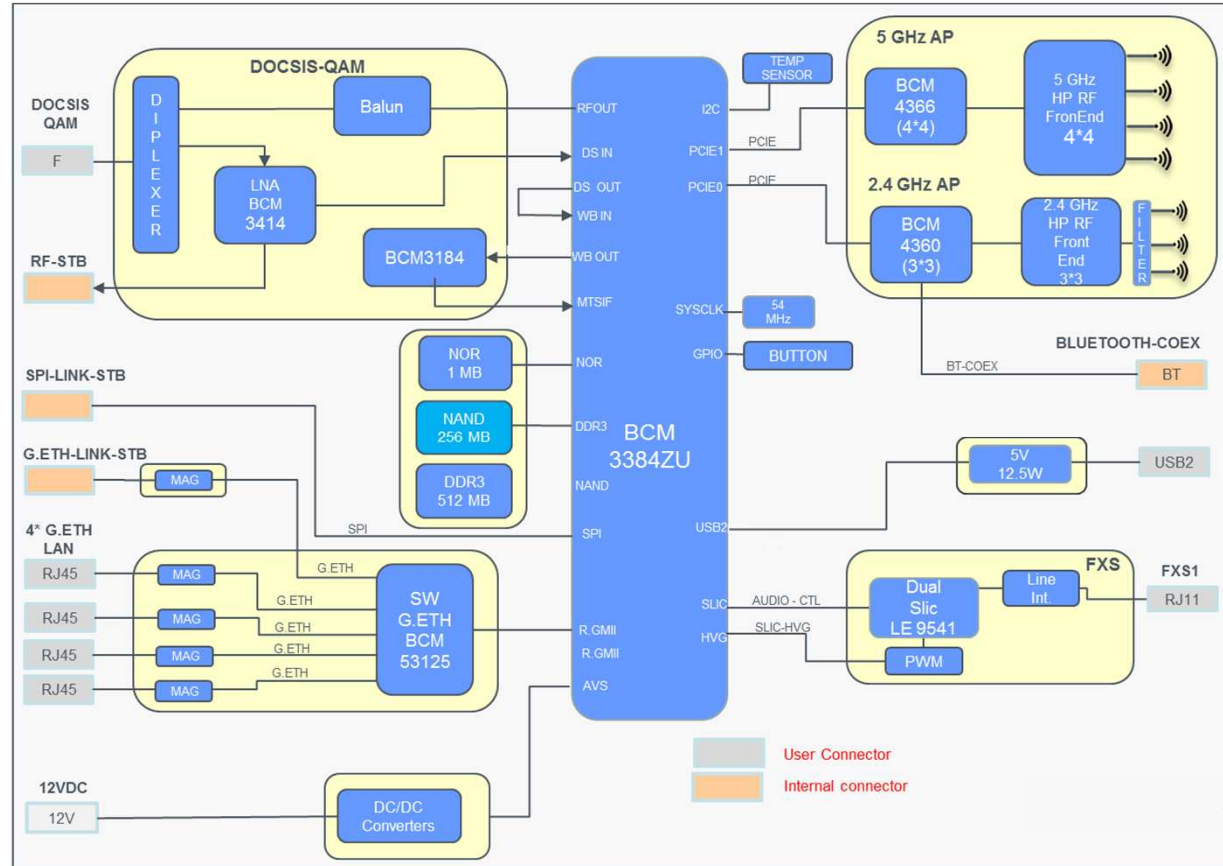
WARRANTY

Warranty period: 27 months

MIDDLEWARE FEATURES

Boot and loader :	Sagemcom
Conditional access :	NAGRA CONNECT
DRM:	NAGRA PRM, MICROSOFT PLAYREADY, WIDEVINE
Middleware :	SAGEMCOM Middleware v2 based on Linux
Browser :	Opera SDK4
DLNA Stack:	PacketVideo v4/v6

DGCI384 UHD Alt US - Block Diagram (Access Point Section)



DATASHEET
MiniBox
DCIWA384 UHD
(UHD – ITU-T/J.83A/B/C – WIFI – IP)



(Design subject to change)

SAGEMCOM

20160623

HARDWARE FEATURES

TRANSMISSION STANDARDS

MPEG-2, MPEG-4/H.264, HEVC
IP, ITU-T J.83A/B/C, Wi-Fi

CABLE FRONT END

CABLE RF INPUT

Input frequency range: 85-1002 MHz (6, 7, 8 MHz BW)
RF input level: -15 to +15 dBmV
RF Impedance 75 Ohm
Return loss : <-8dB
Noise figure : <8dB
Tuning step: 62.5 kHz

CABLE DEMODULATOR

Dual DVB-C Demodulator
ITU-T J.83 A/B/C Demodulator
Waveform QAM 16, 32, 64, 128, 256
Symbol rate 1 to 6.96 MS/s

DATA PORTS

1 x ETHERNET 10/100/1000
Fully integrated IEEE 802.3/802.3u
10/100/1000 base T- Physical layer
Auto-negotiation 10/100/1000, Full/Half Duplex

USB

Host USB 3.0

PROCESSOR AND MEMORIES

STB: Processor: Broadcom 7252SNR
GPU included in the chipset
RAM memory: DDR3 2GB
Flash memory:
NOR SPI: 4MBytes
NAND eMMC: 4GB

WIFI WLAN

802.11n 2.4GHz 3x3 Broadcom 43602
802.11ac 5GHz 4x4 Broadcom 4366
High Power (FCC compliant)
Dual-band concurrent
Integrated antennas

LOCAL CONNECTIVITY

Bluetooth 4.1 + BLE

VIDEO DECODING

MPEG2

Main Profile @ Low, Main and High Level
Maximum bit rate of 80Mbps
MPEG-4 Part 10 / H.264

Main Profile and High Profile upto 4.2

Maximum bit rate of 80Mbps

HEVC / H.265

Main Profile and Main10 Profile

VP9

8 bit

Maximum bit rate of 40Mbps

VC1

Simple and Main Profile

Advanced Profile @ level3

AUDIO DECODING

Stereo 2.0

MPEG-1 layer I &II

MPEG-2 layer II

MPEG-2 layer III

AAC-LC, HE-AACv1, HE-AACv2

AC3, E-AC3 passthrough or downmixing

WMA9

Multi-channel 5.1

AC3, E-AC3 passthrough

E-AC3 to AC3 transcoding

OUTPUT RESOLUTION / FORMAT

Resolution for UHD broadcast

3840x2160 @ 50/60Hz (progressive)

Unscaled (original format) or scaled

Resolution for HD broadcast

1920x1080 @ 50/60Hz (interlaced)

1280x720 @ 50/60Hz (progressive)

1920x1080 @ 50/60Hz (progressive)

Compatible with 3D mode (HDMI2.0)

Unscaled (original format) or scaled

Resolution for SD broadcast

720x576 @ 50/60Hz (interlaced&progressive)

HDMI OUTPUT

HDMI 2.0a and HDCP 2.2

VIDEO:

RGB 4:2:2 and 4:4:4, YCrCb 4:4:4, 4:2:2 and

4:2:0

AUDIO:

- 2 channels PCM in case of MPEG1-layer II and AAC

- AC3 or PCM in case of AC3 bit stream

- E-AC3, AC3 or PCM in case of E-AC3 bit stream

AUDIO OUTPUT

Optical S/PDIF

2-channel PCM in case of MPEG1-layer II

Originally received bit stream in case of

AC3 and DTS

FRONT PANEL

1x Standby button (WPS with long press)

IR sensor: 56 KHz, SA protocol

1x bicolour led (on/stdby)

1x green led (network on/off)

REAR PANEL

1 x F-Type (input only)

1 x HDMI 2.0a

1 x SPDIF (optical)

1x USB3.0

1 x RJ45 (ETH 10/100/1000BT)

SD Card reader

DC in (12V)

POWER SUPPLY

Mains supply voltage 110-120 V ~60 Hz

Power Consumption max: 12V / 3.8A

MECHANICAL

STB Color : black

STB Size (wxdxh) : 230x200x50 mm tbc

STB Operating temp. 0°C to +40°C

Weight (STB/Total) : TBD

Storage temp. -25°C to +65°C

Packaging: size TBD

ACCESSORIES

External AC/DC adapter with LED + US Power

cable (1m)

User guide pack

WARRANTY

Warranty period: 27 months

MIDDLEWARE FEATURES

Boot and loader :	Sagemcom
Conditional access :	NAGRA CONNECT
DRM:	NAGRA PRM, MICROSOFT PLAYREADY, WIDEVINE
Middleware :	SAGEMCOM Middleware v2 based on Linux
Browser :	Opera SDK4
DLNA Stack:	PacketVideo v4/v6

DCIWA384 UHD Alt US Block Diagram

