GEOSATpro microHD Receiver

The brand is GEOSATpro and the model is the microHD.

The GEOSATpro microHD STB is only 5" wide x 1.25" tall x 4.5" deep and weighs 6.1 ounces.
Will be shipped with a full size remote, batteries, external power supply and 1 meter - 3.5mm AV breakout cable.
the remote is about 1.5" longer than the STB.

Inclusive of FCC cert, UL, Dolby,MPEG and HDMI licensing, we anticipate the microHD to retail at approx. $125.

Firmware updates are running on Galaxy 19, KU. So no need to track down the latest firmware file, it will be available via OTA-SSU satellite delivered update and also from our online file repository. If you wish to keep the current firmware, just save to an USB prior to pressing the update via satellite button. We are currently separating the download file types memory block allocations so your custom channel list is not lost when updating the firmware.
The microHD is also displaying 64APSK
We have verified the microHD on all valid constellation configurations for DVBS2 compliant transmissions of 8psk, 16apsk, 32apsk and 64apsk with our test bench MPEG4 encoder/modulator.
Diseqc 1.1 yes
Diseqc 1.2 yes
USALS (Diseqc 1.3) yes
22k yes
We haven't noted any IR operational issues related to interference from electronic devices. Is the unit near the power supply for your TV? That is a strange issue that might be related to poor shielding on the PCB rather than the IR pick-up.

We are slightly modifying the microHD to provide a wider look angle for the IR pick-up. Currently the design allows an inadequate 50 degrees at 5 meters, but we are attempting 150+ degrees at 5M. These are some of the little details that we are incorporating.
The angle has been increased to a minimum +/-50 degrees from center measured at 15+ feet.

BTW.... Did I mention 150 satellite / 10,000 channels capacity, locked 480i NTSC on the composite and HDMI 1.3 variable up to 1080P @60hz? Manual channel entry, simultaneous switch and motor control, and quite a few more features are implemented that we normally expect from our receivers..... These are not wish list items or for future release. They work now!

The chipset does not support ATSC.

The microHD will not support 4:2:2.

The size of the enclosure has minimal effect on the STB operation as long as the chipsets have adequate heat dissipation with proper heat sinks and the cases are well ventilated. The micoHD case is vented on both top and sides.

Hot Box tested the microHD for 350 hours enclosed in a 1 cubic foot sealed box tuned to a medium bandwidth HD channel. Enclosure temp averaged 90 DEG. F. The heat sink was warm to the touch and the chipset remains within specifications. In a 12 hour test under sustained high bandwidth HD the chipset remained within specifications and no heat related issues have been found.

The microHD satellite list is capable of 150 satellites and currently has the ability to manually assign 99 DiSEqC 1.2 position assignments. We may expand support to 150, but unaware of any devices that support more than 99. Using a combination of switches and settings, I dont believe that one would use more than 99 positions operating several motors as the position assignments could be shared. One would have an incredible location to be able to see that many satellites (140 degrees divided by 2 degree spacing is 70 potential KU positions and 4 degree spacing for separate C-band positioning could add 35 positions). A few additional positions near the horizon and a super user could exceed the 99 position limit.

We are currently are working on the simultaneous support of Fixed, USALS and DiSEqC 1.2 assignable by satellite. This will allow each satellite in the list to be independently assigned and controlled as a fixed, motorized DiSEqQ 1.2 or motorized USALS. That should give you tons of motor and switch flexibility and save wear and tear on motors swinging around dishes when all you really wanted was a channel from a fixed dish.

We are providing the default Universal switching 5150 (22KHz OFF) / 10750 (22KHz ON) per request. This setting will work good as it can be user assigned to be active only on select satellites and not be set for all satellites. Personally, I like to keep my lists separate as the C-band side is not blind scanned as frequently as KU. The waiting for unnecessary scans would KILL me!

A default list of satellites with active transponders will be preinstalled at the factory for satellites visible from North America. The list will be split into two sections. First the KU band then second the C-Band satellites. This default list or your custom list can be downloaded via USB, edited and loaded back onto the receiver. Sorry, the list is not Channel Master software compatible. We are negotiating with a European software developer to provide a free killer editing program designed to manage the microHD's larger memory capacity and switching capabilities.

Scan parameters for polarity, MHz steps, symbol rate ranges, FTA/ALL, TV/RADIO/DATA (for IP TS recording) and fully adjustable start and stop frequency scan range.

How well does it handle recording high bitrate feeds?

Does very well on the problematic feeds that have been discussed in the forums. Haven't had a chance

to check the bizzarre lock up issues on the college football feed that is being discussed in another thread.

Had an opportunity to view, record and analyze the problematic MPEG2 football feed this weekend. The channel had no issues in live mode. During playback there is an occasional "macroblocking" and after 50+ seconds,

One thing that I overlooked in the initial testing is that it appears that this signal is a S2 8PSK variant H8PSK. We had activated this modulation type in the microHD firmware, but had not recorded a live signal until now to test. We had caught a few NBA lock out press feeds during the past few weeks in H8PSK, but had not recorded the programming for playback testing.

We have now corrected the H8PSK file playback issue and it is implemented in the microHD.
The microHD currently supports:
DVB-S (QPSK)
DVB-S2 (QPSK / 8PSK / H8PSK / 16APSK)

In observation of other posts, it would appear that the Openbox and Manhattan have not implemented H8PSK.

he microHD has display settings for 480i, 480p, 720p, 1080i, 1080p, 1080p 30fps, Native TV or by Source. The aspect can be set to Auto, 16:9, 4:3WB and 4:3LB

Works very well on filling the screen with the proper looking images when the TV's aspect and resolution settings are set to either native or correctly configured to match the receiver settings. Beware of selecting "Source" type, as the transmission maybe incorrectly flagged and output the incorrect resolution and aspect ratios.

The local time setting is one way of maintaining a fixed time setting.

The fixed GMT method is an exclusive feature that we developed for previous GEOSATpro models that you will find on no other FTA receiver. In this time mode the receiver is still synced by the satellite, but the user gets to select which satellite and transponder sets the GMT reference.

All other FTA receivers sync the GMT to whatever transponder is tuned. This wreaks havoc on PVR recordings as the majority of transponders are not referenced to GMT.

the microHD remembers the audio selection for each channel and recalls the last selected audio track selected, and if stereo, left or right channel.

No SID blacklisting feature planned. It may be inconvenient to repeatedly delete channels, but probably not a good idea to blacklist a SID as uplinker's frequently reuse SIDs for replacement channels or

multiple services.

We are currently working on an solution to pass EIA-608 Closed Captioning through on the composite video port for the connected analog device to decode and display. This feature must be available if it will be a GloryStar STB. Not 100% sure that CC will be available at this point, but the chipset supplier states yes..... we say maybe!

The "ALI" programming package is the simplest way to develop with ALI engineering support. If a GUI is implemented too early, the chipset engineers support and interaction can be affected. Once the functions are implemented and stable, then the developers launch a customized GUI.

The GUI will have similarities to other STBs as the chipset is produced by ALI. The difference is in the features that we develop.... We are tinkering under the hood!

The microHD is based on the ALI M3501 demodulator, ALI M3601s Decoder and Airoha AV2011 single tuner. Extremely impressed with the Airoha tuners!

able to wake the hard drive a few minutes before a recording is about to take place?
The wake-up is sent 15 sec prior to time setting. We have developed a +/- 2 minute on start and stop, but will hold off on implementing until other timer developments are completed.
30 event timers
Currently supports: once, daily, weekly, monthly. We will be adding a weekday only feature like we developed for the Visionsat.

The microHD shuts off in either manual or timer record modes when the signal is lost.
The negative to this process is that if the downlink is interrupted for any reason (weather, uplink hick-up, etc) the recording has stopped and will not automatically resume. Unfortunately, the ability to restart an interupted timer event is not possible.

Our Canadian distributor will be carrying the microHD. Several Canadian resellers have contacted us about carrying the unit, so you should have a choice or resellers.

The microHD Blind Scan is extremely accurate. Remember that I am a hobbyist first, developer 2nd. Performance and integrity of any GEOSATpro product is very important to me! I will not sell or promote any product that I would not personally want in my own home or hobby shack.

No wired or wireless LAN connection. The microHD supports satellite or USB file playout.

Current Supported LO Frequencies 1/1/2012

0: 950 - 2150MHz IF
5150: 3400 - 4200MHz RF

5750: 3700 - 4200
9750: 10700 - 11700
10000: 10950 - 11700
10600: 11700 - 12750
10750: 11700 - 12200
11250: 12200 - 12700
13850: 12200 - 12750
Universal: 9750 - 10600: 10700 - 11700 / 22khz ON: 11700 - 12200
Universal: 5150 - 10750: 3400 - 4200 / 22khz ON: 11700 - 12200
Stacked 5150/5750: 3400 - 4200 (scan horizontal polarity only)
Stacked 10750/10100: 11700 - 12200 (scan horizontal polarity only)
Stacked 10750 / 10175 - 11700 - 12200 (scan horizontal polarity only)

Actually, there is no other FTA receiver in North America that can be updated via satellite! No need to locate the latest firmware file. No need to download and unzip. No need to transfer from your PC to the receiver. To update the firmware, simply select "Firmware Update by Satellite" in the menu. The firmware will be updated to the most recent approved version. Data updates for satellite changes is also available as an optional update via "Default Data Update by Satellite".

Saving backups and computer channel editing will be by USB. Very few users telnet file management on their receivers. This is an extremely niche hobbyist segment and I would assert that very few hobbyist (even on this site) have ever used a LAN connection to manage their receiver.

We understand that this unit is not going to fit every user wants or needs, but for $125 it offers more features, developmental support than any other receiver currently available.

The microHD has the ability to delete individual or all transponders per satellite. There currently is no development for selection for group deletion. The channel is deleted when the transponder is removed.

By default the satellite list is divided by KU / C Bands.
Format Example:

97.0W K G19
101.0W K SES1

The satellite names can be edited in the STB or with a PC

Here is the latest update to answer a few members requests.

The microHD currently supports and has been verified with these formats:
QPSK / 8PSK / H8PSK / 16APSK / 32APSK and finally 64APSK!!!

The composite video output is default and set for NTSC 480i. The HDMI is fully CEC compliant the resolution can be set by source, connected monitor or manual selection in these resolutions: 480i, 480p, 720p, 1080i and 1080p!!!

So far, the microHD works with every USB 2.0 and 3.0 HDD that we have tested. Only have one 2TB drive on the bench and it is recognized and formats fine. Have only had issues with occasional small thumb flash drives with poor bandwidth.

Once again, I confirm that the microHD will NOT process and display 4:2:2. Don't want members reading features into the thread that will not exist and have false hopes for a feature that is not in development.

We have specifically designed the microHD to be capable of expansion on a firmware level rather than requiring our customers to buy another model.

I think that it is ridiculous that another site has now sold five different versions of the Openbox within the past eight months..... These receivers all use the same m3602 SOC???? Now one site is selling a disposible S12 with no warranty and telling people that it is a POS upfront! What is this market turning into? Selling equipment that has no licensing, FCC or valid safety certifications..... Just to make a $$$$!!!

Note that the microHD uses the new m3601 based SOC and is able to offer 1080p and support many more modulation types than the receivers based on the older m3602 chipset. Also, most of the other ALI based STBs have either 256 or 512k memory. The microHD has 1GB! This provides much better handling of functions and opportunity to increase feature sets.