

User Manual



2 Channels H.264 IP Video Encoder

H-SPARTAN-2



TECHNICAL SPECIFICATIONS

Interfaces						
Input	2x HDMI, 2 x 3G-SDI					
Output	1 x RJ45, 1Gbps IP Streaming,					
	Protocols: UDP/RTP(Unicast/Multicast)/HLS,RTMP, HTTP					
Control	LCD with 6 keys & 1 x RJ45 (Web NMS)					
Video Encoding						
Format	H.264 AVC/HP@L4.0					
Resolution	Input: 1080 50/60p, 1080 50/60i, 720 50/60p, 480i, 576i					
	Output: up to 1080 30p					
Bitrate	HDMI: 2~14Mbps					
	SDI: 2~14Mbps					
Rate Control	CBR/VBR					
Chroma Sample	4:2:0, 4:2:2					
GOP Structure	cture IBBP					
Audio Encoding						
Format	Mpeg1L2, AAC					
Bitrate	64 ~ 384Kbps					
Sample Rate	44.1KHz, 48.0KHz					
System						
Management	LCD + Control buttons/Ethernet					
Language	English					
Upgrade	Ethernet					
General						
Power Supply	DC 12V 2A					
Dimension	220 x 206 x 44mm					
Weight	1000g					
Environmental	Temperature: 5°C- 40°C					
For Operating	Relative Humidity: 80% @ 30°C					

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Application Example - Point to Point



WEB OPERATION INSTRUCTION

The device is configured using NMS. Access to the NMS is via the network connection

1. IP Address of Computer Setting

We must choose the static IP address according to the default gateway address. The first three numbers must be the same (192.168.0.x in the example).

System Control> Network Connections> LAN Connection> Properties> Internet Protocol Version 4 TCP/IPv4 > Properties> Use the following IP address:

IP address Computer: 192.168.0.20 and Subnet mask: 255.255.255.0.



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		Internet Protocol Version 4 (ICP/IPV4) Properties
ineral	Networking	General
ionnection IPv4 Connectivity: Internet IPv6 Connectivity: No network access Media State: Enabled SSID: SZ_SG Duration: 00:00:06 Speed: 433.3 Mbps Signal Quality: still Details Wireless Properties Activity Sent — Received Bytes: 207,517 688,953 Properties	Connect using: Qualcomm Atheros QCA9377 Wireless Network Adapter Configure This connection uses the following terms: Configure This connection uses the following terms: Configure Configure This connection uses the following terms: Configure	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. Obtain an IP address IP address: IP address: IP address: Subnet mask: Obtain DNS server addresses: Prefered DNS server: Alternate DNS server: Alternate DNS server: Validate settings upon exit

2. IP Address of Computer Setting

- 2.1 Each machine can have different username and password settings.
- 2.2 Please log in before operation. Default IP is 192.168.0.168; Password: 0000



3. NMS Home Page & Status

Contents of the home page includes: Device Information/Encoder Setup/Streaming Setup/Network/ Password/Upgrade/Configuration.

And device's Device Information details are also show on this page. Here you can know the Model Name, Serial Number, Firmware version, Boot Version, Modulator Version, Modulator Mode, MAC Address.



TH�R	1
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Streaming server						
Web Management					Logout	03:00
Summary Device Information Parameters Encoder Setup Streaming Setup System Network Setup Password Upgrade Configuration	Device Information Model Name Firmware Version Encoder1 Version MAC Address	H-SPARTAN-2 220810R1222 V2.6R29 00:1E:97:6F:18:B3	Serial Number BOOT Version Encoder2 Version	022208006 220810R122 V2.6R29	22	

4. Encoder Setup

Use the Setting Setup Page to set the Encoder setup. You can change the program name, or choose the signal source is HDMI or SDI. You can also change the Video Bitrate, Rate Mode, Audio Encoder, Audio Bitrate, PMT PID, Video PID, Audio PID, PCR PID parameters.

Web Management					Logout	03
	Encoder					
BROADCAST		Encoder 1	Encoder 2	1		
	ON/OFF	ON	✓ ON	~		
Summary	Source	HDMI	- HDMI	~		
 Device Information 	Video Bit Rate(Mbps)	8.00	8.00			
Parameters	Rate Mode	CBR	CBR	~		
Encoder Onten	Audio Encode	AC3	✓ AC3	~		
Encoder Setup	Audio Bit Rate	128 Kbps	✓ 128 Kbps	~		
 Streaming Setup 	PMT PID	100	200			
System	PCR PID	101	201			
Network Setup	Video PID	102	202			
Password	Audio PID	103	203			
Upgrade	Service ID	1	2			
Configuration	TS ID	1	2			
	Service Provider	TVProvider-1	TVProvider-2			
	Service Name	HDTV-1	HDTV-2			
	Resolution	1080/60	1080i60			
	Bit Rate	8.57 Mbps	8.58 Mbps			



5. Streaming Setup

Use the Streaming Setup Page to setup your required streaming method. You can choose up to 2xSPTS or 1xMPTS. You can choose UDP/RTP (unicast and multicast), UDP/RTP is automatic analysis.

Web Management								Lo	gout
	IP Streaming								
BROADCAST		Protocol	Play Mode	Group	IP / Desti	nation IP / File	9	Port	TTL
2	SPTS 1	UDP 🗸	Multicast 🗸	225.2.2.6				2234	128
ummary	Z SPTS 2	UDP 🗸	Multicast 🗸	225.2.2.6				2236	128
Device Information		UDP 🗸	Multicast 🗸	225.2.2.2				2240	128
arameters	NIT								
Encoder Setup	-						and the second	-	_
Streaming Setup	00770.4	ON/OFF	ON ID	Network ID	Netwo	rk Name	PDS	LCN	
ystem	SPIS 1	OFF V	1	1	Network	000	000029][1	_
Notice 1 Octor	SPIS 2	OFF V	2	2	Network	2 00	000029	2	
Network Setup	MPTS	OFF 🛩	3	3	Network	3 00	000029		-
Password								4	0
Upgrade	TVCT								
Configuration	8								
		ON/OFF	Major Chan	nel Minor C	hannel	Short Na	me		
	SPTS 1	OFF 🗸	10	1		HDTV-1			
	SPTS 2	OFF 🛩	10	2		HDTV-2			
	MPTS	OFF 🗸	10	3		HDTV-3			
			10	4		HDTV-4			
	CVCT								
				1					
	ODTO 1	ON/OFF	Modulator	Major Chan	nel M	inor Channel	SI	ort Name	_
	00101			10				10	
	epte o				2			12	-
	SPTS 2			10	11.2				
	SPTS 2 MPTS	OFF ¥	64QAM 🛩	10	3			//	_



6. Network Setup

The Web Management default setting 192.168.0.168.

Web Management			Logout 02
	Network		
BROADCAST	NMS IP		
Summary	IP Address	192.168.0.188	
Device Information	Subnet Mask	255.255.255.0	
Parameters	Default Gateway	192.168.0.1	
Encoder Setup	Data IP		
 Streaming Setup 	IP Address	192.168.10.10	
System	Subnet Mask	255.255.255.0	
Network Setup	Default Gateway	192.168.10.1	
Password			
 Upgrade 	Cancel App	ly	
Configuration			

7. Password

You can modify the user name and password. In the New password field, enter the new password you want to change, also the same password as the new password to confirm.

Streaming server			
Web Management			Logout 03:00
Summary Device Information Parameters Encoder Setup Streaming Setup System Network Setup Password Upgrade Configuration	Password New Username New Password Confirm Password Apply	admin	



8. Upgrade

Use the Upgrade page to update system firmware.

Streaming server			
Web Management		Logout	03:00
THOR 2	Upgrade		
BROADCAST 3	Firmware File :		
Summary	Choose Upgrade		
Device Information			
Parameters	Encode File :		
Encoder Setup	Choose Upgrade		
 Streaming Setup 			
System	BOOT File :		
 Network Setup 	Choose Upgrade		
Password			
► Upgrade			
 Configuration 			

9. Configuration

Use the "Factory Reset" to reset configuration to factory default.

Use the "Download Config" to saved device setting configuration setting to PC.

Use the "Upload Config" to upload the file with pre-s	aved configuration settings to device.
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Streaming server			
Web Management			Logout 03:00
THOR 2	Configuration		
BROADCAST	Factory Reset	Apply	
Summary	Download Config	Save	
Device Information			
Parameters	Upload Config	Load	
 Encoder Setup 			
 Streaming Setup 			
System			
Network Setup			
Password			
Upgrade			
Configuration			



For Further Tech Support 1-800-521-Thor(8467) support@thorfiber.com