

IPQAM 3.0 Operation

User Guide

1. Product Introduction



Figure 1:

- ①、CTRL: Network Management Control Interface, this port is for net manager function that manage the IPQAM3.0
- ②、CA: Scrambling Interface, this port is for scrambling function that communicate with CAS
- ③、GbE1-GbE4: Gigabit Ethernet interface, Gb SFP module interface identifier

This is the operation guide for IPQAM3.0 function, it supports for 192 frequencies TS

modulation, and each RF port supports 24 frequencies output.





Environment Requirement

1_{\times} establish the connection ;

①、Network configuration—confirm the IP of IPQAM3.0:

Step 1、Both "CTRL" interface of IPQAM3.0 and PC(for Net manager) connect to switch; Ensure that there is no IP conflict in LAN, setting both IP of IPQAM3.0 and PC into the same subnet (IPQAM3.0 default IP: 192.168.1.100 and PC IP: 192.168.1.101).

Step 2、Typing IPQAM3.0's IP address into your search engine, where in the IPQAM3.0 default IP as 192.168.1.100, and then enter, At the moment, language type selection page will appear, as shown in Fig.1-1 Network management language selection page, need to input the password of the account after selecting the type of the language, as shown in Fig.1-2, and then access the WEB network management interface of the IPQAM3.0.



Fig 1-2 Login frame

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	E System Config	uration	Network Configuration						
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	IP Network			Main Board	Card 1	Card 2	Card 3	Card 4	
	ASI Monitor		IP Address	192.165.152.181	192.165.152.182	192.165.152.183	192.165.152.184	192.165.152.185	
	Card Backu Device Back	0	SohnetMask	255 255 255 0	255 255 255 0	255.255.255.0	255 255 255 0	255 255 255 0	
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			SNMP TrapAddress 2	192,105,152,110					
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			Copyrighte 2000-2012 3	Sumavision Inc. All right	reserved. Website	www.sumassion.com): 		

Fig. 1-3 setting page of system

1. According to your planning table, modify the IP of IPQAM3.0, and remember the IP you modified that you should keep both IP of PC and mainboard in the same subnet.

"Main Board" $\$ The mainboard IP of IPQAM3.0, it used to log in and manage the IPQAM3.0 "Card 1"~"Card 4" $\$ The IP of Gbe card, ensure that there is no IP conflict in LAN and both IP of "Main Board" and "Card 1-4" in the same subnet.

"SNMP Trap Address 1-3", Default setting is ok.

Click "Apply" to complete the modification.



Step 4、 ②Go to "Cards"-> "Card List"->"Card #"->"Input", "#" is the card number you need to configure, as showing in Fig.1-4

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	-	Card List	<	A > Cards > Card 4 > Input								
	@	Card 1 Card 2 A Cord 3	î	GbE Input Configuration					Apply	Refresh		
		Card 4		Port Configuration	Port 1		Pert 2	Port 3		Port 4		
		GDe 1		IP Address	192.165.152.200	192.165	152.211	192.165.152.233	192.165.1	52 244		
		Gbe 2		Subnet Mask	255 256 255 0	265.265	255.0	255 255 255 0	255 255 2	55.0	(*	0
		Gbe 3		Gateway	192.165.152.1	192.165	152.1	192.165.152.1	192 105 1	52.1		
		Output		MAC Address	00-24-68-03-80-71	00-24-68	8-03-90-71	00-24-68-03-40-71	00-24-68-	03-60-71	1.800	
		P RF Port 4/1	-	Input Switch	On	• Off	le le	• Off	× 0#		<u> </u>	
		Channel 4/1.2		Speed Select	1Gbps AN	• 1Gbps A	N []	 1Gbps AN 	🗶 1Gbps AN			-
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		Channel 4/1.4 Channel 4/1.5		GbE Inpit Name	GBE111111	GBE2		GBE3	GBE4		(6)	
		- Channel 4/1.6		Port Pair Cenfiguration		Port Pair 1			Port Pair 2			
		Channel 4/1.7 Channel 4/1.8		Primary Port	1			<u>1</u>		12		
		Channel 4/1.9		Current Active Port	1			1		14		
		- Channel 4/1.10		Redundancy Configuration	100			100				
		Channel 4/1.12		Backupmethod	1+1					1	4	
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		- Channel 4/1.14 Channel 4/1.15		BackupEnabled	Enabled							-(7)
		Channel 4/1.16		Check Time (100ms)	5					- And		-
		Channel 4/1.17	-	Revert To Primary	Enabled							
			100								2	

Fig.1-4 Cards setting

"Input switch", ③ First to select the using ports as "ON", and unused ports as "OFF", the "Port $1"\sim$ "Port 4" are correspond to physical ports Gbe 1-4

"Port 1"~"Port 4"、 ④ The IP configuration for Gbe ports of Card which you selected, also are the data receiving ports

⑤"Speed Select"、SFP configuration, there are 6 types you can select. Normally, you can select it as "1Gbps AN" or "1Gbps Full", and "1Gbps AN" means 1Gbps-SFP Identify automatically, and click "Apply" to complete the modification

"Speed State", The status of SFP connection.

6, "Gbe input Name", the name of Gbe port, default setting is ok.

 \bigcirc Backup configuration, default setting is ok, and port 1 and port 3 are the primary , the port 2 and port 4 are the standby. (port 2 backup port 1 and port 4 back up port3)



Step 5, Go to "Cards"-> "Card List" -> "Output" -> "RF Port #/1" (8) to configure the frequencies output



Fig.1-5 Frequency point adding and batch adding **Output QAM Channel**, The number of frequency.

"QAM manager", Select it as "Broadcast".

"Channel Mode", Select using frequencies as "Normal", unused frequencies as "Delete", Click "Apply" to complete the modification.

"Frequency", "Modulation", "Symbol Rate", According to your requirement, you can input the parameters into it, other options keep it to default setting.

(10), Output Level, you can refer to this map to check the configuration of output frequency



Step 6, Go to "Maps"->"Card List"->"RF Port #/1".

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		Card 1	2	Stream	Map Co	nfiguration											
		E Card 3										Add Row	Aps	ly Refr	entre.		
	11	Card 4 C REPort 4/1 Channel 4	/a.a	Row #	Output QAM Channel	Destination IP Address	UDP Port	Active	Allowed Ingress Ports	GbE Select	Stream Type	Backup Ba Enable UDA	Port P	ogram Numbe	er It		
		- Channel 4 - Channel 4	/1.2 /1.3	0 0	4/1.1	224.0.64.32	1000	True 🔹	Pair 1 +	Gbe 1 =	Normal 🔻	No + 0	0	0	e1		~
		- Channel 4	/1.4	1 1	4/1.1	224.0.64.32	1002	True •	Pair 1 •	Gbe 1 +	Normal 👻	No + 0	0	3	1		-(12)
		Channel 4	/1.5 /1.6	2 2	4/1.1	224.0.64.32	1004	True •	Pair 1 ·	Gbe t -	Normal •	No vo	0	4			
		- Channel 4	(1.7	4 1	4/12	224.0.64.32	1006	Thie .	Pair 1	Ghe 1 v	Normal +	No. Com	0				
		Channel 4	/1.9 E	5 2	4/1.2	224 0 64 32	1010	True +	Pair 1 *	Gbe 1 -	Normal *	No rio	0	4			
		Channel 4	/1.10	5 0	4/1.3	224.0 84 32	1012	True .	Pair 1 .	Gbe 1 =	Normal +	No - o	0	2	2		
		Channel 4	/1.11 /1.12	7 1	4/1.3	224.0.64.32	1014	True *	Pair 1 .	Goel +	Normal -	tio v lo	0	4	3		
		Channel 4	/1.13	8 2	4/1.3	224.0.64.32	1016	True •	Pair 1 .	Gbe 1 =	Normal -	NO TO	0	4	4		
		Channel 4	/1.14	9 0	4/1.4	224.0.64.32	1018	True .	Pair 1 .	Goel -	Normal +	10 .10	0	2	2		
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		Channel 4	/1.21	Base Val	ue	0.0.0.0	49155	False -	Pair 1 -	(Gbelt -	Normal -	14 -lo	0	2	2		
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Fig.1-6 Setting of mapping table

The "Maps" page is used for adding the code stream port information received by various frequency points

Fist go to the left of the page⁽¹⁾, select "Card List"->"Card #"->"RF Port #/1", then you can add

the code stream port information into "Stream Map Configuration"

"Output QAM Channel" This is the port number, each port only one Destination IP Address allowed, so you should pay attention to it, donn't add one more IP into one channel. For example, 4/1.1 have two multicast default setting, so you should delete the extra one and keep only one IP option in this channel, and the same requirement as other channels. 24 channels total in one RF Port and 24 IPs can be added.

"Destinnation IP Address" This is the signal source IP that from MUX or encoder or other IP-output device, it spports multicast IP and unicast IP.

"UDP Port", According to your requirement, it matchs with "Destinnation IP Address"

"Stream Type", Select it as "Normall", if you select it as "Delete", it will be removed.

Other options just use the defualt setting.

Click "Apply" to complete the modification.



Step 7 Go to "Cards"->"Card List"->"Output"



Fig.1-7 Setting output parameters

This page you can configure the output Level and Frequency Range, select the Port Control as "ON", the corresponding RF Port is available, according to your requirement to configure it. Step 8, Go to "Monitor"->"Card List"->"Card"->"Input"->"Gbe#" that you can check the Gbe port stream status , confirm it is working or not.

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		n Output		NORMAL	Multicast	4/1	192.165.152.136	2563	224.0.64.32	1018	OK	N/A	NIA	18/6	NIG	N/A	37.9850	1		
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				NORMAL	Multicast	4/1	192.165.152.138	2565	224.0.64.32	1030	OK	NA	NA	N/A	N/A	N/A	37.9850	1		
				NORMAL	Multicast	4/1	192.165.152.136	2566	224.0.64.32	1036	OK	N/A	N/A	NIA	N/A	NIA.	37.9850	1		
				NORMAL	Multicast	4/1	192.165.152.136	2567	224.0.64.32	1042	OK	NiA	NIA	NIA	N/A	N/A	38.0271	1	1.	
				NORMAL	Multicast	4/1	192 165 152 136	2568	224.0.64.32	1048	OK	NA	NIA	N/A	NIOA.	N/A	37.9850	1		
				NORMAL	Multicast	4/1	192.165.152.136	2569	224.0.64.32	1054	OK	N/A	N/A	N/A	N40A	N/A	38.0271	1		
				NORMAL	Multicast	4/1	192.165.152.136	2570	224.0.64.32	1060	OK	N/A	N/A	N/A	N/A	N/A	37.9850	1		
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				NORMAL	Multicast	4/1	192.165.152.136	2572	224.0.64.32	1072	OK	NIA	NA	N/A	NA	N/A	37.9850	1		
				NORMAL	Multicast	4/1	192 165 152 136	2573	224.0.64.32	1078	OK	NA	NIA	NIA	NIOA.	NIA	37.9850	1		
				NORMAL	Multicast	4/1	192.165.152.136	2574	224.0.64.32	1084	OK	N/A	N/A	NIA	NA	NIA	37.9850	1		
				NORMAL	Multicast	4/1	192.165.152.136	2575	224.0.64.32	1090	OK	NA	N/A	N/A	N/A	N/A	37.9850	1		
				NORMAL	Multicest	4/1	192.165.152.136	2576	224.0.64.32	1096	OK	NIA	N/A	NIA	NICA	N/A	38.0271	1		
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Fig.1-8 Page of device summary