# **SynAST Driver Upgrade Instruction**

1. Release Version: SynAST-1.0.0.0

Release Date: February, 2009 Supported Board Models:

Series	Model	Related Documents	Note
EVA.	FXM-8A/PCI	AST_FXM001.pdf	
FXM	FXM-16A/PCIe	AST_FXM001intro.pdf	
TEJ	TEJ-1A/PCI	AST TE 1001 pdf	
	TEJ-2A/PCI	AST_TEJ001.pdf AST_TEJ001intro.pdf	
	TEJ-4A/PCI	A31_1E3001iiiii0.pdi	
CDC	CDC-1522A/PCI	AST CDC001.pdf	
	CDC-2522A/PCI	AST_CDC001.pdf  AST_CDC001intro.pdf	
	CDC-3522A/PCI	AST_CDC001IIIII0.pdi	

#### **Release Notes:**

SynAST-1.0.0.0 not only integrates fxm8apci-1.0.0, fxm16apcie-1.0.0.0, tejxapci-1.0.0 and cdcx522apci-1.0.0, but also improves in functions and features.

Series	Improvement in Features	Note
	Change the way to deal with interruption, which enhances the	
	accuracy for interruption.	
EVM TE L CDC	Fix the bug that the driver could not load automatically.	
FXM, TEJ, CDC	Add the installation, configuration and test instruction of Trixbox and	
	FreeSwitch to relative user manuals.	
	Consummate the FAQ section in our user manual.	
FXM, TEJ	Mend the echo cancellation arithmetic, improving the quality of tone.	
	Support composite modules.	
FXM	Solve the problem that it takes a relative long time to detect the ring in	
	case the line from GSM Modem is connected with the board.	
TEJ	Support the clock configuration item of zaptel.	

2. Release Version: SynAST-1.1.0.0

Release Date: July, 2009 Supported Board Models:

Series	Model	Related Documents	Note
FXM	FXM-8A/PCI	AST_FXM001.pdf	
	FXM-16A/PCIe	AST_FXM001intro.pdf	
TEJ	TEJ-1A/PCI	AOT TE 1004 - 15	
	TEJ-2A/PCI	AST_TEJ001.pdf	
	TEJ-4A/PCI	AST_TEJ001intro.pdf	

CDC	CDC-1522A/PCI CDC-2522A/PCI	AST_CDC001.pdf AST_CDC001intro.pdf	
	CDC-3522A/PCI		

#### **Release Notes:**

Besides zaptel, this version SynAST-1.1.0.0 supports the dahdi driver and provides manuals on how to install, configure and test such platforms as yate, callweaver, elastix, asteriskNOW for our SynAST driver.

Series	Improvement in Features	Note
	Add description in our user manual on how to install and configure the	
	DAHDI driver.	
FXM, TEJ, CDC	Add new files especially on how to install, configure and test the	
	platforms yate, callweaver, elastix and asteriskNOW.	
	Add the driver codes used in DAHDI.	
TEJ	Support channelBank.	
	Support the setting of 75ohm or 120ohm as the impedance.	

## 3. Release Version: SynAST-1.2.0.0

Release Date: August, 2009 Supported Board Models:

Series	Model	Related Documents	Note
	FXM-8A/PCI	AST_FXM001.pdf	
FXM	FXM-16A/PCIe	AST_FXM001intro.pdf	
1 AIVI	FXM3201P	AST_FXM002.pdf	
	FAIWI320TF	AST_FXM002intro.pdf	
	TEJ-1A/PCI	AST_TEJ001.pdf AST_TEJ001intro.pdf	
TEJ	TEJ-2A/PCI		
	TEJ-4A/PCI	A31_1E3001IIIII0.pui	
	CDC-1522A/PCI	AST CDC001 pdf	
CDC	CDC-2522A/PCI	AST_CDC001.pdf	
	CDC-3522A/PCI	AST_CDC001intro.pdf	

#### **Release Notes:**

This version SynAST-1.2.0.0 newly supports the FXM3201P board.

Series	Improvement in Features	Note
FXM	Newly support the FXM3201P board.	
	Add the instruction on the configuration to support channel bank.	
TEJ	Fix the bug that link status cannot be shown correctly by dahdi_tool and zttool.	

4. Release Version: SynAST-1.3.0.0

Release Date: September, 2009

## **Supported Board Models:**

Series	Model	Related Documents	Note
EVA	FXM-8A/PCI	AST_FXM001.pdf	
	FXM-16A/PCIe	AST_FXM001intro.pdf	
FXM	FXM3201P	AST_FXM002.pdf	
	FXM3201E	AST_FXM002intro.pdf	
	TEJ-1A/PCI	ACT TE 1001 pdf	
	TEJ-2A/PCI	AST_TEJ001.pdf AST_TEJ001intro.pdf	
TEJ	TEJ-4A/PCI		
	TEJ201E	AST_TEJ002.pdf	
	TEJ101E	AST_TEJ002intro.pdf	
CDC	CDC-1522A/PCI	AST_CDC001.pdf	
	CDC-2522A/PCI	•	
	CDC-3522A/PCI	AST_CDC001intro.pdf	

### **Release Notes:**

This version SynAST-1.3.0.0 newly supports the FXM3201E, TEJ201E and TEJ101E boards.

Series	Improvement in Features	Note
FXM	Newly support the FXM3201E board.	
TEJ	Newly support the TEJ201E and TEJ101E boards.	
FXM	Improve the capability of echo cancellation for FXM-8A/PCI,	
TEJ	FXM-16A/PCle, TEJ-1A/PCl, TEJ-2A/PCl and TEJ-4A/PCl boards.	

## 5. Release Version: SynAST-1.4.0.0

Release Date: November, 2009 Supported Board Models:

Series	Model	Related Documents	Note
	FXM-8A/PCI	AST_FXM001.pdf	
	FXM-16A/PCIe	AST_FXM001intro.pdf	
FXM	FXM3201P		
1 XIVI	FXM3201E	AST_FXM002.pdf	
	FXM3200P	AST_FXM002intro.pdf	
	FXM3200E		
	TEJ-1A/PCI	AST TE 1001 pdf	
	TEJ-2A/PCI	AST_TEJ001.pdf AST_TEJ001intro.pdf	
	TEJ-4A/PCI	AST_TE300Tintro.pdi	
TEJ	TEJ201E		
	TEJ101E	AST_TEJ002.pdf	
	TEJ201P	AST_TEJ002intro.pdf	
	TEJ101P		
CDC	CDC-1522A/PCI	AST_CDC001.pdf	

CDC-2522A/PCI	AST_CDC001intro.pdf	
CDC-3522A/PCI		

#### **Release Notes:**

This version SynAST-1.4.0.0 newly supports the FXM3200P, FXM3200E, TEJ201P and TEJ101P boards. Testings are all passed on dahdi-linux-complete-2.2.0.2+2.2.0 and the below versions.

S	Series Improvement in Features		Note
		Newly support the FXM3200P and FXM3200E boards.	
	FXM	Add a feature of clock configuration to the FXM32 series boards.	
AST		Fix the bug on the echo cancellation switch of FXM32 series.	
	TEJ	Newly support the TEJ201P and TEJ101P boards.	
	Optimize the process of auto installation and configuration.		

## 6. Release Version: SynAST-1.5.0.0

Release Date: December, 2009 Supported Board Models:

Series	Model	Related Documents	Note
	FXM-8A/PCI	AST_FXM001.pdf	
	FXM-16A/PCIe	AST_FXM001intro.pdf	
FXM	FXM3201P		
1 7(1)	FXM3201E	AST_FXM002.pdf	
	FXM3200P	AST_FXM002intro.pdf	
	FXM3200E		
	TEJ-1A/PCI	AST_TEJ001.pdf	
	TEJ-2A/PCI	AST_TEJ001intro.pdf	
	TEJ-4A/PCI	AGT_TEGOOTHING.pui	
	TEJ201E		
	TEJ101E		
TEJ	TEJ201P		
	TEJ101P	AST_TEJ002.pdf	
	TEJ200E	AST_TEJ002intro.pdf	
	TEJ100E		
	TEJ200P		
	TEJ100P		
	CDC-1522A/PCI	AST_CDC001.pdf	
CDC	CDC-2522A/PCI	AST_CDC001intro.pdf	
	CDC-3522A/PCI	A31_CDC001IIIII0.pdi	

### **Release Notes:**

SynAST-1.5.0.0 newly supports the TEJ200E, TEJ100E, TEJ200P and TEJ100P boards. Testings are all passed on dahdi-linux-complete-2.2.0.2+2.2.0 and the below versions.

Series   Improvement in Features   Note		Series	Improvement in Features	Note
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	TEJ	Newly support the TEJ200E, TEJ100E, TEJ200P and TEJ100P boards.	
	Improve th	ne algorithm for echo cancellation.	
AST Add a new function to determine the order of loading boards in the same kind b			
	board nun	nber.	
	Add desc	riptions on receiving FSK caller information by FXM series boards and	
	some other	er information about the DAHDI tool.	

## 7. Release Version: SynAST-1.6.0.0

Release Date: March, 2010 Supported Board Models:

Series	Model	Related Documents	Note
	FXM-8A/PCI	AST_FXM001.pdf	
	FXM-16A/PCIe	AST_FXM001intro.pdf	
FXM	FXM3201P		
1 XIVI	FXM3201E	AST_FXM002.pdf	
	FXM3200P	AST_FXM002intro.pdf	
	FXM3200E		
	TEJ-1A/PCI	AST_TEJ001.pdf	
	TEJ-2A/PCI	AST_TEJ001.pdf	
	TEJ-4A/PCI	A31_1E3001IIIII0.pui	
	TEJ201E		
	TEJ101E		
TEJ	TEJ201P		
	TEJ101P	AST_TEJ002.pdf	
	TEJ200E	AST_TEJ002intro.pdf	
	TEJ100E		
	TEJ200P		
	TEJ100P		
	CDC-1522A/PCI	AST_CDC001.pdf	
CDC	CDC-2522A/PCI	AST_CDC001.pdf  AST_CDC001intro.pdf	
	CDC-3522A/PCI	AGT_GDGGGTIIIIIO.pdi	

#### **Release Notes:**

SynAST-1.6.0.0 fixes a fatal bug on FXM3200E and FXM3200P, improves the echo cancellation and faxing capabilities of the boards. Several relative files are modified or given new content. Testings are all passed on dahdi-linux-complete-2.2.0.2+2.2.0 and the below versions.

S	eries	Improvement in Features	
AST	FXM	Fix the bug that the driver cannot be loaded on FXM3200E and	
AST FAIN		FXM3200P.	
		Improve the algorithm for echo cancellation.	
		Optimize the faxing capability of FXM32 series boards.	

	Provide a special interface for gain adjustment.	
TEJ	Add the YELLOW warning status.	
CDC	Support Dahdi.	
Add a manual switch for echo cancellation.		
Add step-by-step installation manuals on Asterisk and Trixbox.		
Change th	ne 'doc' folder structure, correcting some errors in description.	

## 8. Release Version: SynAST-1.7.0.0

Release Date: May, 2010 Supported Board Models:

Series	Model	Related Documents	Note
	FXM-8A/PCI	AST_FXM001.pdf	
	FXM-16A/PCIe	AST_FXM001intro.pdf	
	FXM3201P		
FXM	FXM3201E	AST_FXM002.pdf	
FAIVI	FXM3200P	AST_FXM002intro.pdf	
	FXM3200E		
	FXM3211P	AST_FXM003.pdf	
	FXM3210P	AST_FXM003intro.pdf	
	TEJ-1A/PCI	ACT TE 1004 adf	
	TEJ-2A/PCI	AST_TEJ001.pdf	
	TEJ-4A/PCI	AST_TEJ001intro.pdf	
	TEJ201E		
	TEJ101E		
	TEJ201P		
	TEJ101P	AST_TEJ002.pdf	
TEJ	TEJ200E	AST_TEJ002intro.pdf	
	TEJ100E		
	TEJ200P		
	TEJ100P		
	TEJ401E		
	TEJ801E	AST_TEJ003.pdf	
	TEJ400E	AST_TEJ003intro.pdf	
	TEJ800E		
	CDC-1522A/PCI	AST_CDC001.pdf	
CDC	CDC-2522A/PCI	AST_CDC001intro.pdf	
	CDC-3522A/PCI	//or_obootinitio.pdi	

## **Release Notes:**

SynAST-1.7.0.0 newly supports the FXM3211P, FXM3210P, TEJ401E, TEJ801E, TEJ400E and TEJ800E boards. Multiple relative files are modified or given new content. Testings are all passed on

dahdi-linux-complete-2.3.0+2.3.0 and the below versions.

Series		Improvement in Features	Note
	FXM	Newly support the FXM3211P and FXM3210P boards.	
		Newly support the TEJ401E, TEJ801E, TEJ400E and TEJ800E boards.	
		Fix the bug that the channel becomes unavailable after it keeps an SS1	
	TEJ	call for a long time.	
		Fix the bug that the driver fails to be manually loaded for TEJ200E,	
		TEJ100E, TEJ200P, TEJ100P.	
A O.T.	Add a step during the driver installation to query whether to enable the switch for		
AST	echo cano	cellation in hardware.	
	Fix the dri	iver installation failure in dahdi-2.3.0.	
	Change th	ne way to set the order of loading multiple boards: There will no longer pop	
	up the pro	ompt during the driver installation to ask you to set the order of loading	
	boards; if necessary, you may execute the script 'SynAST_driver_init' to set.		
	Add step-	by-step installation manuals on Elastix, AsteriskNow and Freeswitch.	
	Improve tl	he description in relative documents, correcting some errors.	

## 9. Release Version: SynAST-1.8.0.0

Release Date: March, 2011 Supported Board Models:

Series	Model	Related Documents	Note
	FXM-8A/PCI	AST_FXM001.pdf	
	FXM-16A/PCIe	AST_FXM001intro.pdf	
	FXM3201P		
FXM	FXM3201E	AST_FXM002.pdf	
FAIVI	FXM3200P	AST_FXM002intro.pdf	
	FXM3200E		
	FXM3211P	AST_FXM003.pdf	
	FXM3210P	AST_FXM003intro.pdf	
	TEJ-1A/PCI	ACT TE 1004 pdf	
TEJ	TEJ-2A/PCI	AST_TEJ001.pdf	
	TEJ-4A/PCI	AST_TEJ001intro.pdf	
	TEJ201E		
	TEJ101E		
	TEJ201P		
	TEJ101P	AST_TEJ002.pdf	
	TEJ200E	AST_TEJ002intro.pdf	
	TEJ100E		
	TEJ200P		
	TEJ100P		

	TEJ401E	
	TEJ801E	
	TEJ400E	
	TEJ800E	AST_TEJ003.pdf
	TEJ401P	AST_TEJ003intro.pdf
	TEJ801P	
	TEJ400P	
	TEJ800P	
	TEJ101P(SSW)	
	TEJ100P(SSW)	
	TEJ201P(SSW)	
	TEJ200P(SSW)	AST_TEJ004.pdf
	TEJ401P(SSW)	AST_TEJ004intro.pdf
	TEJ400P(SSW)	
	TEJ801P(SSW)	
	TEJ800P(SSW)	
	CDC-1522A/PCI	AST_CDC001.pdf
CDC	CDC-2522A/PCI	AST_CDC001.pdf
	CDC-3522A/PCI	AST_ODGOOTHIIIO.pui

#### **Release Notes:**

SynAST-1.8.0.0 newly supports the TEJ400P, TEJ401P, TEJ800P, TEJ801P, TEJ400P(SSW), TEJ401P(SSW), TEJ800P(SSW), TEJ800P(SSW), TEJ100P(SSW), TEJ100P(SSW), TEJ100P(SSW), TEJ200P(SSW) and TEJ201P(SSW) boards. Multiple relative files are modified or given new content. Testings are all passed on dahdi-linux-complete-2.3.0+2.3.0 and the below versions.

S	eries	Improvement in Features		
	TEJ  Newly support the TEJ400P, TEJ401P, TEJ800P, TEJ801P, TEJ400P(SSW), TEJ401P(SSW), TEJ800P(SSW), TEJ801P(SSW), TEJ100P(SSW), TEJ101P(SSW), TEJ200P(SSW) and TEJ201P(SSW) boards.			
AST	Fix the en	ror in warning information for the TEJ-2A and TEJ-4A boards.		
	Fix the bug that there were no methods provided in SynAST-1.7.0.0 to uninstall the Zaptel.  Improve the description in relative documents, correcting some errors.			