# **SynAST Driver Upgrade Instruction**

1. Release Version: SynAST-1.0.0.0

Release Date: February, 2009 Supported Board Models:

Series	Model	Related Documents	Note
E) (1)	FXM-8A/PCI	AST_FXM001.pdf	
FXM	FXM-16A/PCIe	AST_FXM001intro.pdf	
	TEJ-1A/PCI	AST TE 1001 pdf	
TEJ	TEJ-2A/PCI	AST_TEJ001.pdf	
	TEJ-4A/PCI	AST_TEJ001intro.pdf	
	CDC-1522A/PCI	ACT CDC004 pdf	
CDC	CDC-2522A/PCI	AST_CDC001.pdf	
	CDC-3522A/PCI	AST_CDC001intro.pdf	

#### **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.	
FXM, TEJ, CDC	Fix the bug that the driver could not load automatically.	
FAINI, 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 - 46	
	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		

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	
FAIVI	FXM3201P	AST_FXM002.pdf	
	FAMISZUTF	AST_FXM002intro.pdf	
	TEJ-1A/PCI	AST_TEJ001.pdf AST_TEJ001intro.pdf	
TEJ	TEJ-2A/PCI		
	TEJ-4A/PCI	A31_1E3001IIIII0.pdi	
	CDC-1522A/PCI	AST_CDC001.pdf	
CDC	CDC-2522A/PCI	AST_CDC001.pdf	
	CDC-3522A/PCI	AOT_ODOGOTHRIO.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	AST 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	AST_CDC001.pdf	
	CDC-3522A/PCI	AGT_GDGGGTIIIIIO.pdi	

### **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/PCIe, TEJ-1A/PCI, TEJ-2A/PCI and TEJ-4A/PCI 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	
	TEJ-4A/PCI	AST_TEJ001intro.pdf	
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		

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	AST	Fix the bug on the echo cancellation switch of FXM32 series.	
	TEJ	EJ 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 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_TEGOOTHING.put	
	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	
	CDC-3522A/PCI	/\c1_0D0001\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	

### **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
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	TEJ	Newly support the TEJ200E, TEJ100E, TEJ200P and TEJ100P boards.	
	Improve tl	ne algorithm for echo cancellation.	
AST Add a new function to determine the order of loading boards in the same k		w function to determine the order of loading boards in the same kind by	
	board number.		
	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	AST_TE300 filtito.pdf	
	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	
	CDC-3522A/PCI	ACT_CDCCCTITUO.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		
7.51	1 XIVI	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		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 - 45	
	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	//C1_0D0001IIIIIO.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.

S	eries	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.		
	Add a step during the driver installation to query whether to enable the switch for			
AST	echo cano	cellation in hardware.		
	Fix the dri	ver 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 pr	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 the 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 - 16	
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_CDC001intro.pdf

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				
		Newly support the TEJ400P, TEJ401P, TEJ800P, TEJ801P,				
	TEJ	TEJ400P(SSW), TEJ401P(SSW), TEJ800P(SSW), TEJ801P(SSW),				
	ILJ	TEJ100P(SSW), TEJ101P(SSW), TEJ200P(SSW) and TEJ201P(SSW)				
		boards.				
AST	Fix the error 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.					

### 10. Release Version: SynAST-1.9.0.0

Release Date: November, 2011 Supported Board Models:

Series	Model	Related Documents	Note
EVA.	FXM-8A/PCI	AST_FXM001.pdf	
FXM	FXM-16A/PCIe	AST_FXM001intro.pdf	

	E)/140004B	
	FXM3201P	
	FXM3201E	AST_FXM002.pdf
	FXM3200P	AST_FXM002intro.pdf
	FXM3200E	
	FXM3211P	AST_FXM003.pdf
	FXM3210P	AST_FXM003intro.pdf
	TEJ-1A/PCI	AST_TEJ001.pdf
	TEJ-2A/PCI	
	TEJ-4A/PCI	AST_TEJ001intro.pdf
	TEJ201E	
	TEJ101E	
	TEJ201P	
	TEJ101P	AST_TEJ002.pdf
	TEJ200E	AST_TEJ002intro.pdf
	TEJ100E	
	TEJ200P	
	TEJ100P	
	TEJ401E	
	TEJ801E	
TEJ	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	ACT ODGGG I
CDC	CDC-2522A/PCI	AST_CDC001.pdf
	CDC-3522A/PCI	AST_CDC001intro.pdf
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SynAST-1.9.0.0 newly supports dahdi-2.4. Multiple relative files are modified or given new content.

S	eries	ries Improvement in Features	
AST	FXM32	FXM32 Fix the bug that the driver can not support 4 FXM32 boards to work at the same time.	
	Fix the bu	Fix the bug that the board driver will give warning information when dahdi-2.3.0.1 is	
	being loaded.		

Fix the bug that system death will occur when the driver module is being loaded with	
Linux-2.6.9 kernel.	
Improve the description in relative documents, adding information on how to use	
OpenR2 and libss7.	

# 11. Release Version: SynAST-1.10.0.0

Release Date: January, 2012 Supported Board Models:

Series	Model	Related Documents	Note
BRI	BRI1611	AST_BRI001.pdf	
	BRI1610	AST_BRI001intro.pdf	
	FXM-8A/PCI	AST_FXM001.pdf	
	FXM-16A/PCIe	AST_FXM001intro.pdf	
	FXM3201P		
	FXM3201E	AST_FXM002.pdf	
FXM	FXM3200P	AST_FXM002intro.pdf	
	FXM3200E		
	FXM3211P	AST_FXM003.pdf	
	FXM3210P	AST_FXM003intro.pdf	
	TEJ-1A/PCI	ACT TE 1004 - 46	
	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		
TEJ	TEJ100P		
120	TEJ401E		
	TEJ801E		
	TEJ400E		
	TEJ800E	AST_TEJ003.pdf	
	TEJ401P	AST_TEJ003intro.pdf	
	TEJ801P		
	TEJ400P		
	TEJ800P		
	TEJ101P(SSW)	AST_TEJ004.pdf	
	TEJ100P(SSW)	AST_TEJ004intro.pdf	
	TEJ201P(SSW)	_ '	

	TEJ200P(SSW)		
	TEJ401P(SSW)		
	TEJ400P(SSW)		
	TEJ801P(SSW)		
	TEJ800P(SSW)		
	CDC-1522A/PCI	ACT_CDC004 = 4	
CDC	CDC-2522A/PCI	AST_CDC001.pdf	
	CDC-3522A/PCI	AST_CDC001intro.pdf	

SynAST-1.10.0.0 newly supports dahdi-2.5 and the board models BRI1611P, BRI1610P. Multiple relative files are modified or given new content.

S	eries Improvement in Features		Note
	BRI	Newly support the BRI16 series boards.	
AST	T FXM32 Speed up the module detection during the load of the driver		
	Improve tl	Improve the description in relative documents.	

## 12. Release Version: SynAST-1.11.0.0

Release Date: April, 2012 Supported Board Models:

Supported Board models.				
Series	Model	Related Documents	Note	
DDI	BRI1611	AST_BRI001.pdf		
BRI	BRI1610	AST_BRI001intro.pdf		
	FXM-8A/PCI	AST_FXM001.pdf		
	FXM-16A/PCIe	AST_FXM001intro.pdf		
	FXM3201P			
EVA.	FXM3201E	AST_FXM002.pdf		
FXM	FXM3200P	AST_FXM002intro.pdf		
	FXM3200E			
	FXM3211P	AST_FXM003.pdf		
	FXM3210P	AST_FXM003intro.pdf		
TEJ	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
	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	
CDC	CDC-2522A/PCI	AST_CDC001.pdf
	CDC-3522A/PCI	AST_CDC001intro.pdf

SynAST-1.11.0.0 newly supports dahdi-2.6. Multiple relative files are modified or given new content.

S	eries	Improvement in Features	
AST	TEJ	Fix the bug that the interrupt count of the driver for TEJ800, TEJ400 series baords are inaccurate.	
	Improve the description in relative documents.		

## 13. Release Version: SynAST-1.12.0.0

Release Date: June, 2012 Supported Board Models:

Series	Model	Related Documents	Note
BRI	BRI1611	AST_BRI001.pdf	
	BRI1610	AST_BRI001intro.pdf	

	FXM-8A/PCI	AST_FXM001.pdf
	FXM-16A/PCIe	AST_FXM001intro.pdf
	FXM3201P	·
	FXM3201E	AST_FXM002.pdf
	FXM3200P	AST_FXM002intro.pdf
FXM	FXM3200E	_ '
	FXM3211P	
	FXM3210P	AST_FXM003.pdf
	FXM3211E	AST_FXM003intro.pdf
	FXM3210E	
	TEJ-1A/PCI	
	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	
TEJ	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_CDC001intro.pdf
	CDC-3522A/PCI	_ '

SynAST-1.12.0.0 newly supports the FXM3211E and FXM3210E boards. Multiple relative files are modified or given new content.

Series	Improvement in Features	Note
0000	improvement in reactive	

AST	FXM	Newly support the FXM3211E and FXM3210E boards	
	Digital	Add a new feature to record the original data over the signaling time slot	
	Boards	for driver debugging.	
	Improve the description in relative documents, correcting some errors.		

# 14. Release Version: SynAST-2.0.0.0

Release Date: August, 2012 Supported Board Models:

Model	Related Documents	Note
BRI1611P BRI1610P BRI1611E	AST_BRI001.pdf AST_BRI001intro.pdf	
FXM-8A/PCI FXM-16A/PCIe	AST_FXM001.pdf AST_FXM001intro.pdf	
FXM3201P FXM3201E FXM3200P FXM3200F	AST_FXM002.pdf AST_FXM002intro.pdf	
FXM3211P FXM3210P FXM3211E	AST_FXM003.pdf AST_FXM003intro.pdf	
TEJ-1A/PCI TEJ-2A/PCI TEJ-4A/PCI	AST_TEJ001.pdf AST_TEJ001intro.pdf	
TEJ201E TEJ101E TEJ201P TEJ101P	AST_TEJ002.pdf	
TEJ200E TEJ100E TEJ200P	AST_TEJ002intro.pdf	
TEJ401E TEJ801E TEJ400E		
TEJ800E TEJ401P TEJ801P TEJ400P	AST_TEJ003.pdf AST_TEJ003intro.pdf	
	BRI1611P BRI1610P BRI1611E  FXM-8A/PCI FXM-16A/PCIe  FXM3201P FXM3201E FXM3200P FXM3200E  FXM3211P FXM3211P FXM3211E FXM3210E  TEJ-1A/PCI TEJ-2A/PCI TEJ-2A/PCI TEJ-201E TEJ101E TEJ101P TEJ201P TEJ101P TEJ200P TEJ100P TEJ100P TEJ401E TEJ400E TEJ401E TEJ400E TEJ800E TEJ401P TEJ801P	BRI1611P BRI1610P BRI1611E  FXM-8A/PCI FXM-8A/PCI FXM-16A/PCIe  FXM3201P FXM3201E FXM3200P FXM3200E  FXM3211P FXM3211P FXM3211P FXM3210P FXM3211E FXM3210P FXM3211E FXM3210E  TEJ-1A/PCI TEJ-2A/PCI TEJ-2A/PCI TEJ-201E TEJ-101E TEJ201P TEJ101P TEJ201P TEJ101P TEJ200P TEJ100P TEJ401E TEJ200P TEJ401E TEJ400P  AST_TEJ003.pdf TEJ400E TEJ400P TEJ400P TEJ400P TEJ400P

	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  AST_CDC001intro.pdf	
	CDC-3522A/PCI	AST_CDC00 finitio.pdi	

SynAST-2.0.0.0 newly supports the BRI1611E board. Multiple relative files are modified or given new content.

Series		Improvement in Features	
	BRI	Newly support the BRI1611E board.	
AST	Newly support the hardware fault detection module.		
	Improve the description in relative documents, correcting some errors.		

## 15. Release Version: SynAST-2.0.1.0

Release Date: October, 2014 Supported Board Models:

Series	Model	Related Documents	Note
BRI	BRI1611P BRI1610P BRI1611E	AST_BRI001.pdf AST_BRI001intro.pdf	
	FXM-8A/PCI FXM-16A/PCIe	AST_FXM001.pdf AST_FXM001intro.pdf	
FXM	FXM3201P FXM3201E FXM3200P	AST_FXM002.pdf AST_FXM002intro.pdf	
	FXM3200E FXM3211P FXM3210P	AST_FXM003.pdf	
	FXM3211E FXM3210E	AST_FXM003intro.pdf	
TEJ	TEJ-1A/PCI TEJ-2A/PCI TEJ-4A/PCI	AST_TEJ001.pdf 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	
CDC	CDC-2522A/PCI	AST_CDC001.pdf
	CDC-3522A/PCI	AST_CDC001intro.pdf

SynAST-2.0.1.0 newly supports Dahdi-2.7, Dahdi-2.8, Dahdi-2.9 and Linux kernel version 3.5.0, as well as the Ringing by Group feature on FXM32 series boards. Multiple relative files are modified or given new content.

Series		Improvement in Features	Note
AST	FXM32	Add the Ringing by Group feature to FXM32 series boards.	
/	Improve the description in relative documents, correcting some errors.		