1 Overview

CV2x APIs of HostAPI are exported for application code to exchange data with PC.

2 CV2x APIs

This document lists the syntax of all APIs.

- ArmEth_Init
- ArmEth_TxRxTest
- ArmEth_GetSize
- ArmEth_Recv
- ArmEth_Send

3 API: ArmEth_Init

Syntax:

UINT32 ArmEth_Init(UINT32 *pCh)

Description:

Create a TCP server socket and wait for client to connect.

Parameters:

Type	Parameter	Description	Valid Range
UINT32 *	pCh	The communication channel id	Valid memory address

Returns:

Return	Description
ARM_OK	Success
ARM_NG	Error

4 API: ArmEth_TxRxTest

Syntax:

UINT32 ArmEth_TxRxTest(UINT32 Ch, char *pBuff, UINT32 Size)

Description:

Tx/Rx throughput test. Before exchanging data between PC and CV2x, user could use

this to test connection speed. There will be a warning message if TX/RX speed below to 500Mbps.

Parameters:

Type	Parameter	Description	Valid Range
UINT32	Ch	The channel id	0~63
char *	pBuff	Test buffer	Valid memory address
UINT32	Size	Test buffer size	Must be larger than 10M

Returns:

Return	Description
ARM_OK	Success
ARM_NG	Error

5 API: ArmEth_GetSize

Syntax:

UINT32 ArmEth_GetSize(UINT32 Ch, ARM_ETH_SIZE_INFO_s *pSizeInfo)

Description:

Get the size information from remote PC. Before receiving data, invoke this to get the number and size of data. Then allocate the memory space for it.

Parameters:

Type	Parameter	Description	Valid Range
UINT32	Ch	The channel id	0~63
ARM_ETH_SIZE_INFO_s *	pSizeInfo	The size info buffer	Valid memory address

ARM_ETH_SIZE_INFO_s

Type	Parameter	Description
UINT32	Num	Number of data
UINT32	Size[ARM_ETH_MAX_IO]	Size of data

Returns:

Return	Description

ARM_OK	Success
ARM_NG	Error

6 API: ArmEth_Recv

Syntax:

UINT32 ArmEth_Recv(UINT32 Ch, const ARM_ETH_SIZE_INFO_s *pSizeInfo,
ARM_ETH_DATA_INFO_s *pDataInfo)

Description:

Receive data from remote PC.

Parameters:

Type	Parameter	Description	Valid Range
UINT32	Ch	The channel id	0~63
ARM_ETH_SIZE_INFO_s *	pSizeInfo	The size info buffer	Valid memory address
ARM_ETH_DATA_INFO_s *	pDataInfo	The data info buffer	Valid memory address

ARM_ETH_SIZE_INFO_s

Type	Parameter	Description
UINT32	Num	Number of data
UINT32	Size[ARM_ETH_MAX_IO]	Size of data

ARM_ETH_DATA_INFO_s

Type	Parameter	Description
UINT32	SeqNum	Sequence number of receiving data
UINT64	TimeStamp	Time stamp of receiving data
char *	pBuf[ARM_ETH_MAX_IO]	Data buffer

Returns:

Return	Description
ARM_OK	Success
ARM_NG	Error

7 API: ArmEth_Send

Syntax:

UINT32 ArmEth_Send(UINT32 Ch, const ARM_ETH_SIZE_INFO_s *pSizeInfo, const ARM_ETH_DATA_INFO_s *pDataInfo)

Description:

Send size info and data to remote PC.

Parameters:

Type	Parameter	Description	Valid Range
UINT32	Ch	The channel id	0~63
ARM_ETH_SIZE_INFO_s *	pSizeInfo	The size info buffer	Valid memory address
ARM_ETH_DATA_INFO_s *	pDataInfo	The data info buffer	Valid memory address

ARM_ETH_SIZE_INFO_s

Type	Parameter	Description
UINT32	Num	Number of data
UINT32	Size[ARM_ETH_MAX_IO]	Size of data

ARM_ETH_DATA_INFO_s

Type	Parameter	Description
UINT32	SeqNum	Sequence number of transmitting data; **_user doesn't need to assign it_**. It has been maintained in HostAPI library.
UINT64	TimeStamp	Time stamp of transmitting data. (Optional)
char *	pBuf[ARM_ETH_MAX_IO]	Data buffer

Returns:

Return	Description
ARM_OK	Success
ARM_NG	Error