

FIBOCOM L610 Series

AT Commands_FFS

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Applicability Type

No.	Product Model	Description
1	L610 Series	NA

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Change History

Version	Author	Assessor	Approver	Update date	Description
V1.0.1	Wang Hailong	Ma Menghan	Wang Hailiang	2020-06-13	Standardized format
V1.0.0	Wang Hailong	Long Zhongyou	Long Zhongyou	2020-02-07	Initial version

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1 FFS

1.1 FFS Command

1.1.1 +GTFOPEN, Open or Create a file

1.1.1.1 Description

This command causes the module to open an existent file or create a non-existent file.



Note:

If no file opened +GTFOPEN? command return OK only. The number of files opened at the same time can't exceed 1 .The number of files created at the same time can't exceed 1 .

1.1.1.2 Syntax

Command	Response/Action
+GTFOPEN=<filename>[,<iflag>]	+GTFOPEN: <fd> OK or ERROR: <err>
+GTFOPEN?	+GTFOPEN: <filename>,<fd> ... OK or OK
+GTFOPEN=?	+GTFOPEN: <filename>,(list of supported <iflag>s) OK

1.1.1.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of Duration
No	No	Yes	Yes	< 1s

1.1.1.4 Defined Values

<filename>: String type. The name of file to be opened or created, the length is less than 80 characters.

<iflag>: integer type and range 0, 1, 2, 4, 5, 6

0: Read only

1: Write only

2: Read and write

4: If the file doesn't exist, the file shall be created. The file is opened with read only mode

5: If the file doesn't exist, the file shall be created. The file is opened with write only mode

6: If the file doesn't exist, the file shall be created. The file is opened with read and write mode(default)

<fd>: uint32, file handle.



Note:

The file size is less than 200k byte, the file will be deleted when download other software version.

1.1.2 +GTFCLOSE, Close a file

1.1.2.1 Description

This command causes the module to close an opened file.



Note:

If no file opened +GTFCLOSE? and +GTFCLOSE=? command return OK only.

1.1.2.2 Syntax

Command	Response/Action
+GTFCLOSE=<fd>	OK or ERROR: <err>
+GTFCLOSE?	+GTFCLOSE: <filename>,<fd> ... OK or OK
+GTFCLOSE=?	+GTFCLOSE: (<fd>s of opened files) OK or OK

1.1.2.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of Duration
No	No	Yes	Yes	< 1s

1.1.2.4 Defined Values

<fd>: uint32, file handle.

<filename>: String type. The name of file which can be closed, the length is less than 80 characters.

1.1.3 +GTFWRITE, Write to file

1.1.3.1 Description

This command causes the module to store the data to an existent file.

The module will switch AT mode to Online (raw data transfer) Data Mode if the parameters are only fd and length, then input data to save the file. The module will save data to the file if the parameters are fd and data.

1.1.3.2 Syntax

Command	Response/Action
+GTFWRITE=<fd>,<data>	+ GTFWRITE:<length> OK or ERROR: <err>
+GTFWRITE=<fd>,<length>	><DATA> OK or ERROR: <err>
+GTFWRITE?	OK
+GTFWRITE=?	ERROR

1.1.3.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of Duration
No	No	Yes	Yes	< 1s

1.1.3.4 Defined Values

<fd>: uint32, file handle.

<data>: String type. User data is encoded with 0-F hexadecimal digits. The length of <data> cannot exceed 2048 bytes.

<length>: Size of user data. integer type, range 1-204800 byte

<DATA>: any data.

1.1.4 +GTFREAD, Read from file

1.1.4.1 Description

This command causes the module to read file contents from an existent file.

1.1.4.2 Syntax

Command	Response/Action
+GTFREAD=<fd>,<length>	+ GTFREAD: <LENGTH>,<data> OK or ERROR: <err>
+GTFREAD?	OK
+GTFREAD=?	ERROR

1.1.4.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of Duration
No	No	Yes	Yes	< 70s



Note:

Time of duration in section 1.1.4.3 depends on the baud rate. It is the total time of read 200KB data if baud rate is 38400bps.

The max file size supported is 200KB.

1.1.4.4 Defined Values

<fd>: uint32, file handle.

<length>: The data amount needs to be read. integer type, range 1-204800 byte.

<LENGTH>: length of data, it is equal to <length>

<data>: User data read from file.

1.1.5 +GTFSEEK, The file pointer offset

1.1.5.1 Description

This command can set the position of file pointer which can move from origin to any position.

1.1.5.2 Syntax

Command	Response/Action
+GTFSEEK=<fd>,[<offset>],<origin>	OK or ERROR: <err>
+GTFSEEK?	OK
+GTFSEEK=?	ERROR

1.1.5.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of Duration
No	No	Yes	Yes	< 1s

1.1.5.4 Defined Values

<fd>: uint32, file handle.

<offset>: The offset value, need to move offset the number of bytes. range 0-204800 byte

<origin>: integer type and range 0-2.

0: the beginning of the file

1: the current position of the file pointer

2: the end of the file.

Notes: when <origin> is 2, the value of <offset> is ignore.

1.1.6 +GTFSIZE, The file size

1.1.6.1 Description

This command causes the module to read the file size.

1.1.6.2 Syntax

Command	Response/Action
+GTFSIZE=<fd>	+ GTFSIZE: <size> OK or ERROR: <err>
+GTFSIZE?	OK
+GTFSIZE=?	ERROR

1.1.6.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of Duration
No	No	Yes	Yes	< 1s

1.1.6.4 Defined Values

<fd>: uint32, file handle.

<size>: file size, the unit is byte

1.1.7 +GTFDELETE, Delete a file

1.1.7.1 Description

This command causes the module to delete an existent file.

1.1.7.2 Syntax

Command	Response/Action
+GTFDELETE=<filename>	OK or ERROR: <err>
+GTFDELETE?	OK
+GTFDELETE=?	ERROR

1.1.7.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of Duration
No	No	Yes	Yes	< 1s

1.1.7.4 Defined Values

<filename>: String type. The name of file to be deleted, the length is less than 80 characters.



Note:

The file should be in closed status, before trying to delete it.

1.1.8 +GTFLIST, List all files

1.1.8.1 Description

This command lists the files in the module.



Note:

If no file exists, +GTFLIST command return OK only.

1.1.8.2 Syntax

Command	Response/Action
+GTFLIST	+GTFLIST: <filename>,<size> ... OK or OK
+GTFLIST?	OK
+GTFLIST=?	ERROR

1.1.8.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of Duration
No	No	Yes	Yes	< 1s

1.1.8.4 Defined Values


<filename>: String type. The name of file in the module.

<size>: file size, the unit is byte

2 Error Handling and Error Code

2.1 CME Error

Parameter	Description
<Err>	0, "phone failure" 1, "no connection to phone" 2, "phone-adapter link reserved" 3, "operation not allowed" 4, "operation not supported" 5, "PH-SIM PIN required" 6, "PH-FSIM PIN required" 7, "PH-FSIM PUK required" 10, "SIM not inserted" 11, "SIM PIN required" 12, "SIM PUK required" 13, "SIM failure" 14, "SIM busy" 15, "SIM wrong" 16, "incorrect password" 17, "SIM PIN2 required" 18, "SIM PUK2 required" 19, "incorrect PUK1" 20, "memory full" 21, "invalid index" 22, "not found" 23, "memory failure"

Parameter	Description
	24, "text string too long"
	25, "invalid characters in text string"
	26, "dial string too long"
	27, "invalid characters in dial string"
	30, "no network service"
	31, "network timeout"
	32, "network not allowed - emergency calls only"
	40, "network personalization PIN required"
	41, "network personalization PUK required"
	42, "network subset personalization PIN required"
	43, "network subset personalization PUK required"
	44, "service provider personalization PIN required"
	45, "service provider personalization PUK required"
	46, "corporate personalization PIN required"
	47, "corporate personalization PUK required"
	48, "hidden key required"
	 Note: This key is required when accessing hidden phone book entries.
	49, "The execute command not support"
	50, "Execute command failure"
	53, "parameters are invalid"
	100, "unknown"
	103, "Illegal MS"
	106, "Illegal ME"
	107, "GPRS services not allowed"
	111, "PLMN not allowed"
	112, "location area not allowed"
	113, "roaming not allowed in this location area"
	114, "GPRS services not allowed in this PLMN"
	116, "MSC temporarily not reachable"
	117, "Network failure"
	132, "Service not supported"
	133, "Service not subscribed"

Parameter	Description
	134, "service option temporarily out of order"
	135, "NS-api already used"
	148, "Unspecified GPRS error"
	149, "PDP authentication error"
	150, "invalid mobile class"
	244, "Attach failure"
	257, "Invalid error mapping"
	258, "APN not listed in APN Control List (ACL)"
	701, "incorrect security code"
	702, "max attempts reached"
	1001, "Unassigned (unallocated) number"
	1003, "No route to destination"
	1006, "Channel unacceptable"
	1008, "Operator determined barring"
	1016, "Normal call clearing"
	1017, "User busy"
	1018, "No user responding"
	1019, "User alerting, no answer"
	1021, "Call rejected"
	1022, "Number changed"
	1026, "Non selected user clearing"
	1027, "Destination out of order"
	1028, "Invalid number format (incomplete number)"
	1029, "Facility rejected"
	1030, "Response to STATUS ENQUIRY"
	1031, "Normal, unspecified"
	1034, "No circuit/channel available"
	1038, "Network out of order"
	1041, "Temporary failure"
	1042, "Switching equipment congestion"
	1043, "Access information discarded"
	1044, "requested circuit/channel not available"
	1047, "Resources unavailable, unspecified"

Parameter	Description
	1049, "Quality of service unavailable"
	1050, "Requested facility not subscribed"
	1055, "Incoming calls barred within the CUG"
	1057, "Bearer capability not authorized"
	1058, "Bearer capability not presently available"
	1063, "Service or option not available, unspecified"
	1065, "Bearer service not implemented"
	1068, "ACM equal to or greater than ACM max"
	1069, "Requested facility not implemented"
	1070, "Only restr. digital information bearer capability"
	1079, "Service or option not implemented, unspecified"
	1081, "Invalid transaction identifier value"
	1087, "User not member of CUG"
	1088, "Incompatible destination"
	1091, "Invalid transit network selection"
	1095, "Semantically incorrect message"
	1096, "Invalid mandatory information"
	1097, "Message type non-existent or not implemented"
	1098, "Message type not compatible with protocol state"
	1099, "Information element non-existent or not implemented"
	1100, "Conditional IE error"
	1101, "Message not compatible with protocol state"
	1102, "Recovery on timer expiry"
	1111, "Protocol error, unspecified"
	1127, "Interworking, unspecified"
	1279, "Number not allowed"
	1283, "CCBS possible"

2.2 CMS Error

Parameter	Description
<Err>	1, "Unassigned (unallocated) number" 8, "Operator determined barring" 10, "Call barred" 17, "Network failure" 21, "Short message transfer rejected" 22, "Memory capacity exceeded" 27, "Destination out of service" 28, "Unidentified subscriber" 29, "Facility rejected" 30, "Unknown Subscriber" 38, "Network out of order" 41, "Temporary failure" 42, "Congestion" 47, "Resources unavailable, unspecified" 50, "Requested facility not subscribed" 69, "Requested facility not implemented" 81, "Invalid short message reference value" 95, "Invalid message, unspecified" 96, "Invalid mandatory information" 97, "Message type non-existent or not implemented" 98, "Message not compatible with short message protocol state" 99, "Information element non-existent or not implemented" 111, "Protocol error, unspecified" 127, "Interworking unspecified" 128, "Telematic interworking not supported" 129, "Short message type 0 not supported" 130, "Cannot replace short message" 143, "Unspecified TP-PID error" 144, "Data coding scheme (alphabet) not supported" 145, "Message class not supported" 159, "Unspecified TP-DCS error"

Parameter	Description
	160, "Command cannot be action"
	161, "Command unsupported"
	175, "Unspecified TP-Command error"
	176, "TPDU not supported"
	192, "SC busy"
	193, "No SC subscription"
	194, "SC system failure"
	195, "Invalid SME address"
	196, "Destination SME barred"
	197, "SM Rejected-Duplicate SM"
	198, "TP-VPF not supported"
	199, "TP-VP not supported"
	208, "SIM SMS storage full"
	209, "No SMS storage capability in SIM"
	210, "Error in MS"
	211, "Memory Capacity Exceeded"
	212, "SIM Application Toolkit Busy"
	213, "SIM data download error"
	224, "TP_FCS_APPL_ERR_START"
	254, "TP_FCS_APPL_ERR_STOP"
	255, "TP_FCS_UNSPECIFIED"
	300, "ME failure"
	301, "SMS service of ME reserved"
	302, "operation not allowed"
	303, "operation not supported"
	304, "Invalid PDU mode parameter"
	305, "invalid text mode parameter"
	310, "SIM not inserted"
	311, "SIM PIN required"
	312, "PH-SIM PIN necessary"
	313, "SIM failure"
	314, "SIM busy"
	315, "SIM wrong"

Parameter	Description
	317, "SIM PIN2 required"
	318, "SIM PUK2 required"
	319, "incorrect PUK1"
	320, "memory failure"
	321, "invalid memory index"
	322, "memory full"
	330, "SMSC address unknown"
	331, "no network service"
	332, "network timeout"
	340, "no +CNMA acknowledgement expected"
	512, "MN_SMS_RP_ACK"
	513, "MN_SMS_TIMER_EXPIRED"
	514, "MN_SMS_FORW_AVAIL_FAILED"
	515, "MN_SMS_FORW_AVAIL_ABORTED"
	516, "MS invalid TP-Message-Type-Indicator"
	517, "MS no TP-Status-Report in Phase 1"
	518, "MS no TP-Reject-Duplicate in Phase 1"
	519, "MS no TP-Reply-Path in Phase 1"
	520, "MS no TP-User-Data-Header in Phase 1"
	521, "MS missing TP-Validity-Period"
	522, "MS invalid TP-Service-Centre-Time-Stamp"
	523, "MS missing TP-Destination-Address"
	524, "MS invalid TP-Destination-Address"
	525, "MS missing Service-Centre-Address"
	526, "MS invalid Service-Centre-Address"
	527, "MS invalid alphabet"
	528, "MS invalid TP-User-Data-Length"
	529, "MS missing TP-User-Data"
	530, "MS TP-User-Data too long"
	531, "MS no Command-Request in Phase 1"
	532, "MS Cmd-Req invalid TP-Destination-Address"
	533, "MS Cmd-Req invalid TP-User-Data-Length"
	534, "MS Cmd-Req invalid TP-User-Data"

Parameter	Description
	535, "MS Cmd-Req invalid TP-Command-Type"
	536, "MN MNR creation failed"
	537, "MS CMM creation failed"
	538, "MS network connection lost"
	539, "MS pending MO SM transfer"
	540, "RP-Error OK"
	541, "RP-Error OK no icon display"
	542, "SMS-PP Unspecified"
	543, "SMS rejected By SMS CONTROL"

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