

Initial creation data 2017/12/12
 Final update date 2017/12/17
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 About Data format for image downlink of the ITF-2

Downlink format

Item	Value	Description
Downlink format number	41	F2D long message of communication system A
Maximum data size (Byte)	85	Maximum total data size of the formatted image.
Image format		Original format

Image data structure

Data category	Item	Address	Size (Bytes)	Value	Description
File header	signature	0	3	"IM0"	Ascii characters that shows the data is ITF-2 image type 0.
	total size	3	1	$9 + A + B \leq 85$	The total data size, must be smaller than 85 Bytes.
	offset to image	4	1	$9 + A$	The offset to the image data.
Information header	width	5	1	1 to 255	The width of the image (px)
	height	6	1	1 to 255	The height of the image (px)
	bit depth	7	1	1, 2, 4 or 8	The amount of data per pixel (bit)
	used color number	8	1	-	The number of colors used in the image * if bit depth is 1, maximum is 2 * if bit depth is 2, maximum is 4 * if bit depth is 4, maximum is 16 * if bit depth is 8, maximum is 256
Color palette	color array	9	A	-	Used colors are recorded in 3 Bytes (RGB) for each color index.* The color pallet size is given by A
Image data	color indices	$9 + A$	B	-	Pixel color indices are recorded in left to right, top to bottom order. * Image data size B is given by $B = (width \times height \times bit\ depth) / 8$

maximum is 4 * if bit depth is 4, maximum is 16 * if bit depth is 8, maximum is 255
then in the following formula: $A = \text{used color number} * 3$ (Bytes)
then in the following formula: $B = \text{ceil}(\text{width} * \text{height} * \text{bit depth} / 8.0)$ (Bytes)