

F-Log2 C Data Sheet Ver.1.0

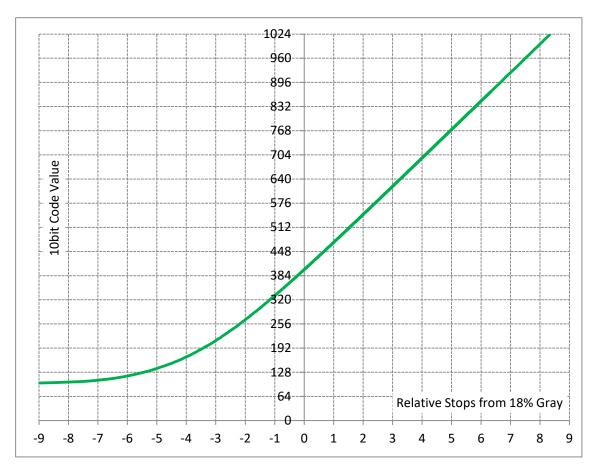
1. Introduction

This document describes the gamma curve and the gamut of F-Log2C in the FUJIFILM digital cameras.

F-Log tone is a digital equivalent of the density characteristics of negative film, and is generally highly compatible with the various post-production methods that have been developed in movie taking fields. In addition, the color gamut is designed with ease of color grading.

2-1. F-Log2 C curve characteristics

The input/output characteristics of the F-log2 C gamma curve is shown in the figure below. The gamma curve of F-Log2 C is identical to that of F-Log2, so that the code value by 10 bits are 95 for 0% of reflection, 400 for 18% and 570 for 90%.





2-2. F-Log2 C Code Value

Input reflection	F-Log2 C		
	IRE	10bit Code Value	
0	3.5	95	
18	38	400	
90	58	570	

2-3. F-Log2 C conversion formula

$$a = 5.555556$$
, $b = 0.064829$, $c = 0.245281$, $d = 0.384316$

$$e = 8.799461, f = 0.092864$$

$$cut1 = 0.000889$$

$$cut2 = 0.100686685370811$$

Scene Linear Reflection to F-Log2 C

out =
$$c * Log10(a * in + b) + d$$
 (in >= cut1)

$$out = e * in + f$$
 (in < cut1)

$$0.0 \le out \le 1.0$$

F-Log2 C to Scene Linear Reflection

out =
$$(10^{((in - d) / c)}) / a - b / a$$
 (in >= cut2)

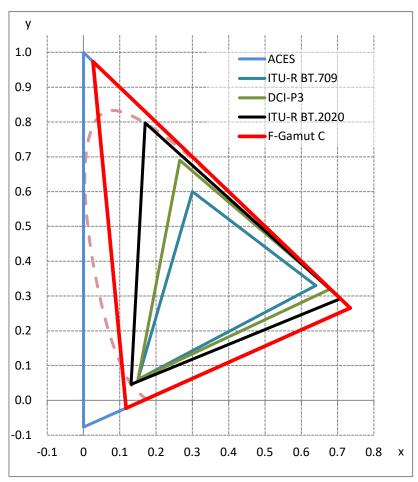
$$out = (in - f) / e (in < cut2)$$

$$0.0 \le in \le 1.0$$



3. F-Log2 C Color Primaries

The color gamut of F-Log2C is F-Gamut C.



		Х	У
F-Gamut C	R	0.73470	0.26530
	G	0.02630	0.97370
	В	0.11730	-0.02240
	White	0.31270	0.32900
ITU-R BT.2020	R	0.70800	0.29200
	G	0.17000	0.79700
	В	0.13100	0.04600
	White	0.31270	0.32900
DCI-P3	R	0.68000	0.32000
	G	0.26500	0.69000
	В	0.15000	0.06000
	White	0.31400	0.35100
ITU-R BT.709	R	0.64000	0.33000
	G	0.30000	0.60000
	В	0.15000	0.06000
	White	0.31270	0.32900
ACES	R	0.73470	0.26530
	G	0.00000	1.00000
	В	0.00000	-0.07700
	White	0.32168	0.33767