

$$\text{Charge Ratio} = \frac{aX_1 + bY_1}{aX_2 + bY_2}$$

$$= \frac{\frac{a}{b}X_1 + Y_1}{\frac{q}{b}X_2 + Y_2} = \frac{X_1}{X_2} + \frac{\frac{Y_1}{Y_2} - \frac{X_1}{X_2}}{\frac{a}{b}\frac{X_2}{Y_2} + 1} = CORR1 + CORR2$$

- a: BCM gain
- b: BCM offset
- X<sub>1</sub>,X<sub>2</sub> : BCM count
- Y<sub>2</sub>,Y<sub>1</sub> :Time count
- CORR2/CORR1<10<sup>-5</sup>