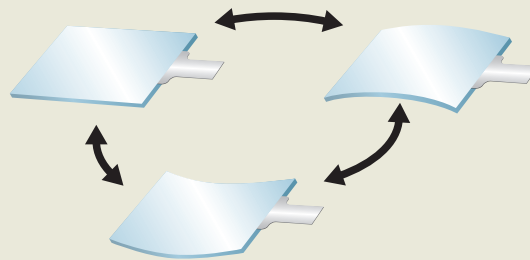


Force Feedback (FFB) Touch Panels

Clicking sensation can be felt when inputting.

【 Mechanism 】

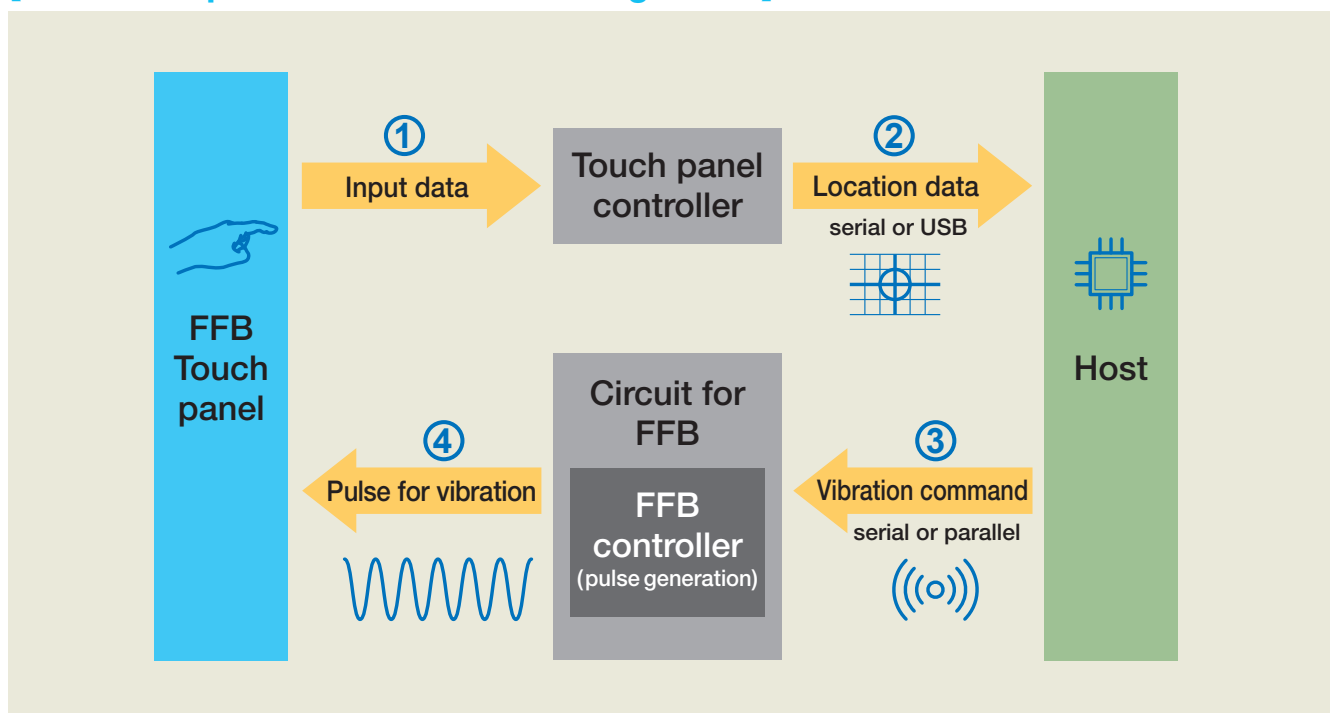
Touch panel vibrates itself by given vibration signals



【 Features 】

1. Realization of clicking sensation when inputting on a touch panel, by applying "self-vibration technology".
2. Optionally settable vibration patterns for varied touch sensations.
3. Provide user with expected touch feelings in a short time.
4. Dedicated controller IC available. (Interface : Serial)

【 FFB touch panel circuit —Block diagram— 】



【 Specification of touch panels 】

Type	Film / glass	Glass / glass
Size (inch)	2.5 ~ 15.0	4.0 ~ 8.0
Operating temp. range (°C)	− 20 ~ + 70	− 30 ~ + 85
Storage temp. range (°C)	− 30 ~ + 80	− 40 ~ + 95
Transparency (%)	70 ~ 88	70 ~ 82
Operation force (N)	0.1 ~ 1.5	0.1 ~ 2.0
Amplitude (μm)	10 min.	10 min.
Supplied voltage (V)	DC 5	DC 5

【 Specification of controller IC 】

Type	Standard	Small
Size (inch)	4.0 ~ 15.0	2.5 ~ 4.0
Supplied voltage (V)	DC 5	DC 3
Supplied voltage (V)(while driving FFB)	200 ~ 400 (peak to peak) AC	200 ~ 400 (peak to peak) AC
Electricity cosumption (mA)(while driving FFB)	300	100
Standly current (μA)	30	10
Interface	Serial(UART)	I ² C, Serial(UART)
IC size (mm)	6.5×6.5	6.5×6.5

【 Supply methods 】

Force feedback touch panel



+

Controller IC



or

Circuit module

