GENERAL SPECIFICATION OF
HS-M7990TH ULTRA TORQUE DIGITAL SERVO

1. TECHNICAL VALUE
CONTROL SYSTEM: +PULSE WIDTH CONTROL 1500usec NEUTRAL, 900~2100us/20ms FRAME
OPERATING VOLTAGE RANGE: 6.0V TO 7.4V
OPERATING TEMPERATURE RANGE: −20°C TO +60°C (−4°F TO +140°F)
TEST VOLTAGE: AT 6.0V
OPERATING SPEED: 0.21sec/60° AT NO LOAD 0.17sec/60° AT NO LOAD
STALL TORQUE: 36.0kg.cm(500oz.in) 44.0kg.cm(611oz.in)
STANDING TORQUE: —
IDLE CURRENT: 22mA AT STOPPED 23mA
RUNNING CURRENT: 400mA/NO LOAD RUNNING 480mA/NO LOAD RUNNING
STALL CURRENT: 8,100mA
DEAD BAND WIDTH: 2usec
OPERATING TRAVEL: ±60°/ONE SIDE PULSE TRAVELING 600usec
DIRECTION: COUNTER WISE/PULSE TRAVELING 2100 TO 1900usec
MOTOR TYPE: CORELESS METAL BRUSH
POTENTIOMETER TYPE: MAGNETIC ROTARY ENCODER
AMPLIFIER TYPE: ATMega48 MCU DIGITAL AMPLIFIER WITH MOSFET DRIVE
DIMENSIONS: 43.8x22.4x40.0mm(1.72x0.88x1.57in)
WEIGHT: 79.0g(2.78oz)
BALL BEARING: DUAL/MR106
GEAR MATERIAL: 1 METAL—PLASTIC & 3 TITANIUM ALLOY
HORN GEAR SPLINE: 24 SEGMENTS/6.76
SPLINED HORNS: HEAVY DUTY/HID-S, HD-0, HD-LS, HD-IL, HD-LL, HD-LG, HD-IG
CONNECTOR WIRE LENGTH: 300mm(11.81in)
CONNECTOR WIRE STRAND COUNTER: 0.08X80EA
CONNECTOR WIRE GAUGE: 20AWG

2. FEATURES
PROGRAMMABLE DIGITAL AMPLIFIER WITH MOSFET DRIVE
DURABLE TITANIUM ALLOY METAL GEARS WITH DUAL BALL BEARING
SEMIPERMNENT MAGNETIC ROTARY ENCODER
ULTRA HARDNESS GEAR SHAFT WITH 4 AXIAL METAL BUSHING
WATER & DUST RESISTANCE
HEAT SINK FOR MOTOR & MOSFET
FOR 2 CELL LITHIUM POLYMER BATTERY

3. APPLICATIONS
LARGE AIRPLANE MODELS

HITEC RCD KOREA INC.