

# MODEL AP600

## NEAR BIT SUB

### FEATURES

- Available in two sizes:
  - 3.5 API Regular (for 4.75" to 5" mud motors)
  - 4.5 API Regular (for 6.5" to 6.75" mud motors)
- Provides accurate inclination & bit rotation speed
- Azimuthal gamma ray provides clear "up" and "down" readings
- Seamless, wireless link to MWD system
- Operates exclusively with Applied Physics Systems MWD systems

### APPLICATIONS

- Geosteering in tight formations and long laterals
- Collision avoidance situations



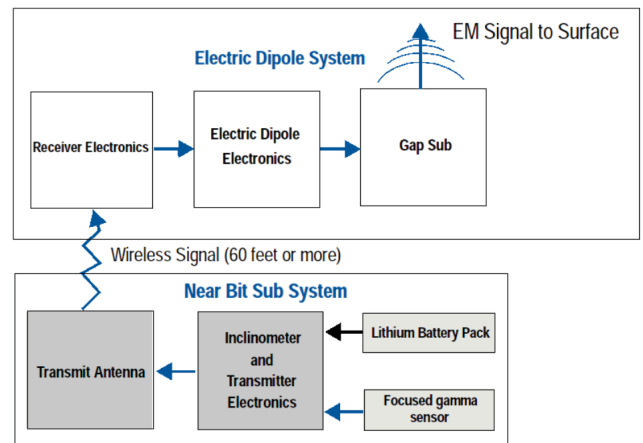
The Applied Physics Systems Model AP600 Near Bit Sub is designed to be used with the Applied Physics Systems Model AP250 Electric Dipole Transmission System. The Near Bit Sub enables measurement of inclination and gamma count data approximately two feet behind the bit. Data is wirelessly transmitted around the downhole motor to the Electric Dipole Transmission System. Received data is decoded by the Electric Dipole electronics, where it is logged and periodically transmitted to the surface.

Inclination is sent continuously to the MWD system even while the drillstring is rotating and tracks very closely with the inclination measurement in the MWD system located above.

The azimuthal gamma sensor in the Near Bit Sub collects gamma counts while rotating and places this data into 1 of 8 bins. System software then tabulates the counts that correspond to top and bottom bins and sends "up/down" or "high/low" information to the MWD System so that drilling decisions can be made in real time.

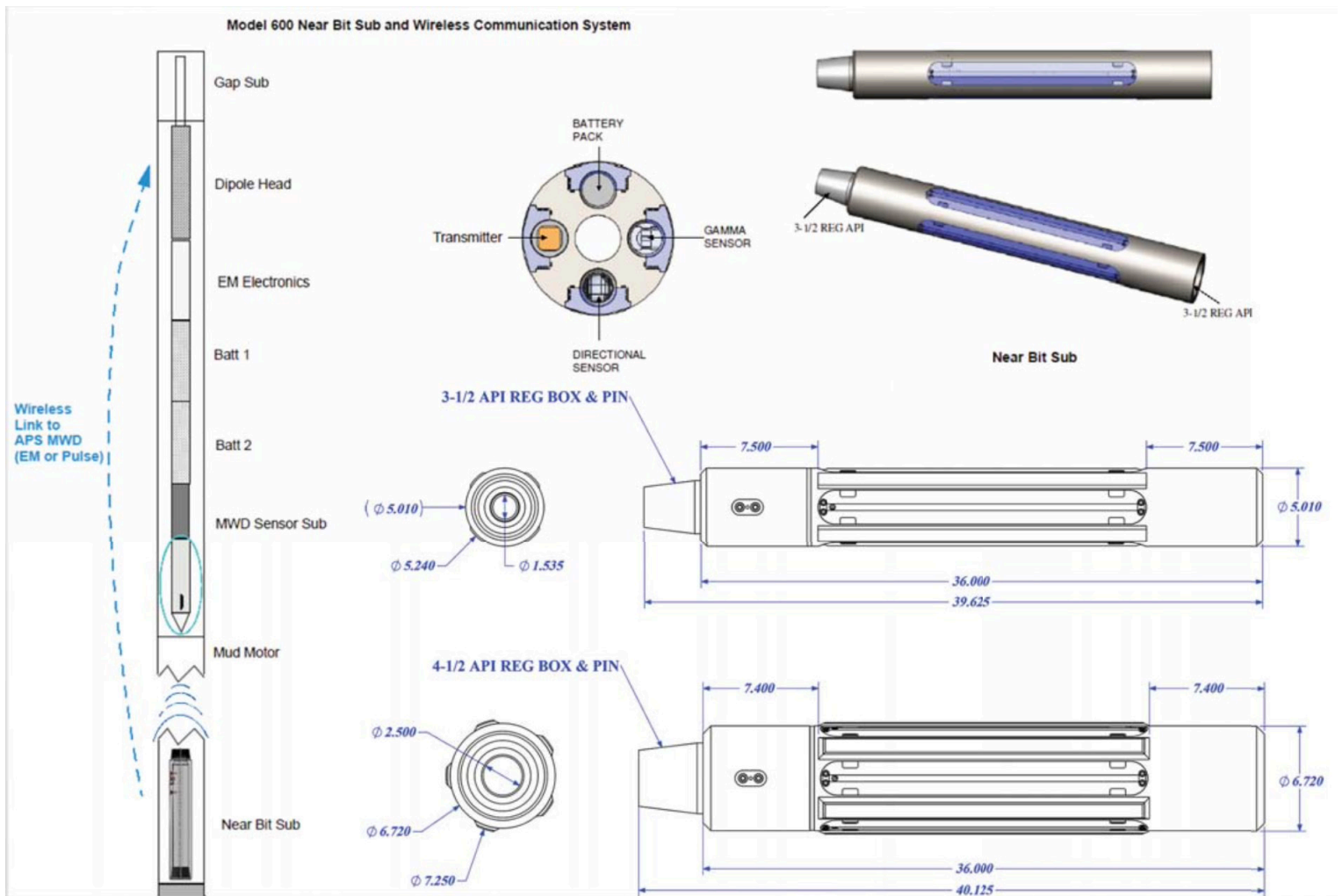
The 3.5 API Regular sub has four pockets, one each for inclinometer, gamma, transmission electronics, and battery. The 4.5 API Regular sub has five pockets, with the same contents as the 3.5 API Regular sub, but with an extra battery. Battery life is typically between 80 - 120 hours per single battery stack.

Diagram of Near Bit System used with Electric Dipole System



## SPECIFICATIONS

Carrier Frequency	935 Hz
Modulation Types	GMSK/FSK
Baud Rate	20 Baud
Voltage	+12 V to +24 V
Current	120 mA @ 22 V input (2.64 W)
Range	60 feet or more
5" Sub (nominal)	Outside Diameter (with hard banding): 5.240" (133.096 mm) Length (shoulder to shoulder): 36" (914.4 mm) Thread Size: 3.5 REG (API)
6.75" Sub (nominal)	Outside Diameter (with hard banding): 7.250" (184.15 mm) Length (shoulder to shoulder) : 36" (914.4 mm) Thread Size: 4.5 REG (API)



Specifications are subject to change without notice.