## EXHIBIT 17

FCC ID: AS5CMP-30

# Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal

Spurious emissions conducted to the transmit terminal of the PCS-TDMA Dual Radio Module (PDRM) were investigated from the lowest RF frequency, 15 MHz, to the 10<sup>th</sup> harmonic of the carrier, 20 GHz, as required by Part 2.1057(a)(1). Part 2.1057(c) specifies that spurious emissions attenuated more than 20 dB below the required limitation do not need to be reported. A single TDMA carrier was modulated by a pseudo-random data bit stream for all 3 time slots, and the PCS-TDMA Dual Radio Module (PDRM) output power level set to approximately +15.5 dBm at it's output terminal. In compliance with Part 24.238(c), conducted spurious emission measurements were made at both the lower and the upper block edge for each PCS frequency block as follows:

PCS Frequency	PCS	Carrier Center
Block	Channel No.	Frequency - MHz
A (le)	2	1930.08
A (ue)	498	1944.96
D (le)	502	1945.08
D (ue)	665	1949.97
B (le)	668	1950.06
B (ue)	1165	1964.97
E (le)	1168	1965.06
E (ue)	1332	1969.98
F (le)	1335	1970.07
F (ue)	1498	1974.96
C (le)	1502	1975.08
C (ue)	1998	1989.96

le = lower block edge frequency; and ue = upper block edge frequency

The limitation for each PCS frequency block edge is specified in Part 24.238(a) as: "the power of any emission shall be attenuated below the transmitter power (P in Watts) by at least  $43 + 10 \log (P)$  dBc." For the PDRM output power at +15.5 dBm (35.5 mW), the required emission attenuation below the carrier is then 28.5 dBc. Part 24.238(b) requires that an instrumentation resolution bandwidth of 1 MHz be used for this test procedure. Three plots were made for each channel listed above: 15 MHz - 1 GHz, 1 - 5 GHz, and 5 GHz - 20 GHz. A variable attenuator was used to adjust the carrier peak to the 0 dBm reticle line as a reference line to facilitate reading the "attenuation below the carrier" direct from the veticle display grid.

# **RESULTS:**

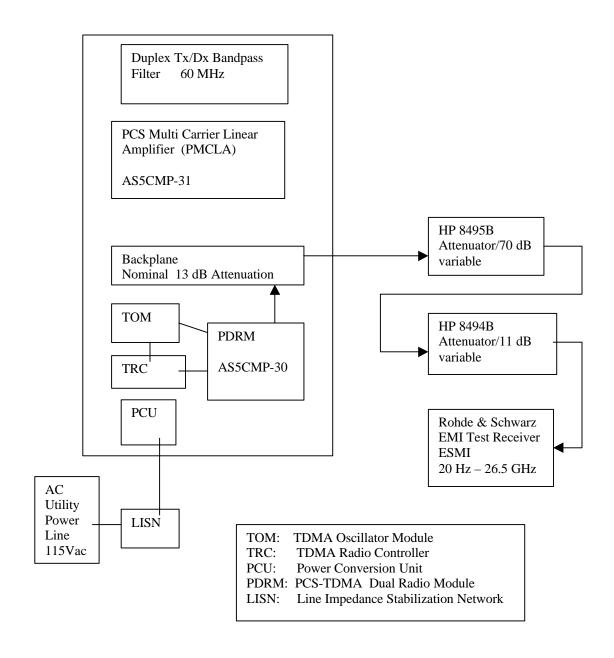
In each of the attached data plots, the instrumentation noise floor far exceeded the 28.5 dBc limitaion by much greater than 20 dB. The PCS-TDMA Dual Radio Module (PDRM), 44WR53, demonstrated full compliance with the requirements of Part 2.1051 and Part 24.238. A block diagram of the test set-up and all data plots are attached to this exhibit.

## **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal

# **Test Set-Up Block Diagram:**

# FLEXENT™ PCS-TDMA Microcell J41698A-1

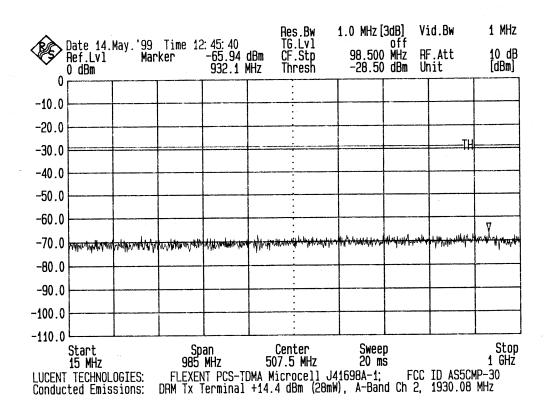


FCC ID: AS5CMP-30

# **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal

**Data Plots of Conducted Spurious Emissions:** 



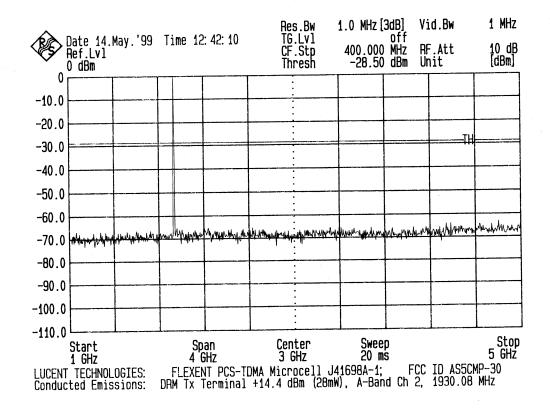
PCS A-Block: Lower Edge Channel Channel 2, 1930.08 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

**EXHIBIT 17** 

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:

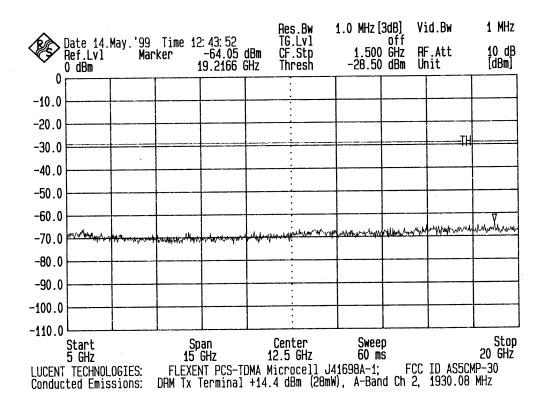


PCS A-Block: Lower Edge Channel Channel 2, 1930.08 MHz

PCS-TDMA Dual Radio Module transceiver output

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS A-Block: Lower Edge Channel Channel 2, 1930.08 MHz

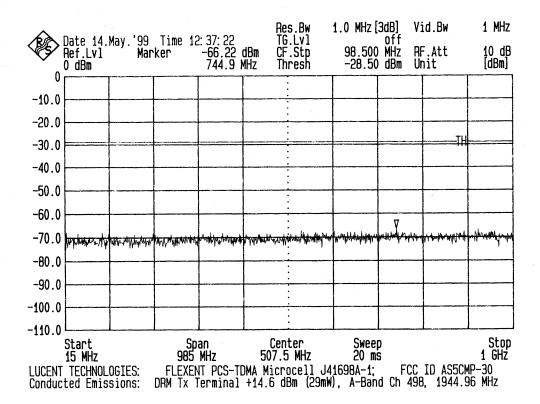
PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal

Data Plots of Conducted Spurious Emissions:



PCS A-Block: Upper Edge Channel

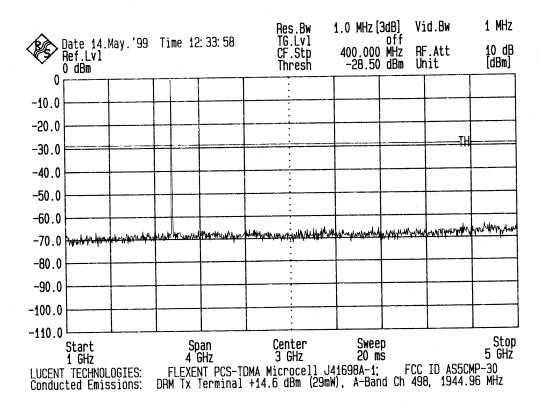
Channel 498, 1944.96 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS A-Block: Upper Edge Channel

Channel 498, 1944.96 MHz

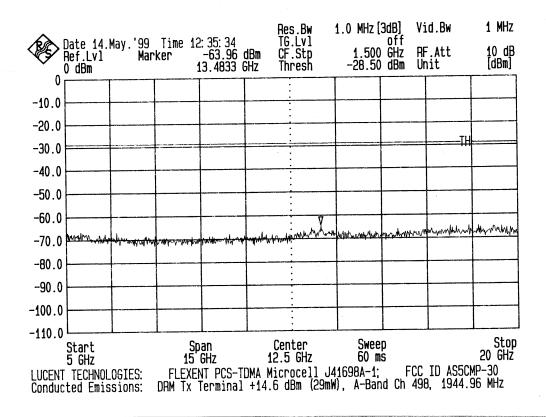
PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal

**Data Plots of Conducted Spurious Emissions:** 



PCS A-Block: Upper Edge Channel

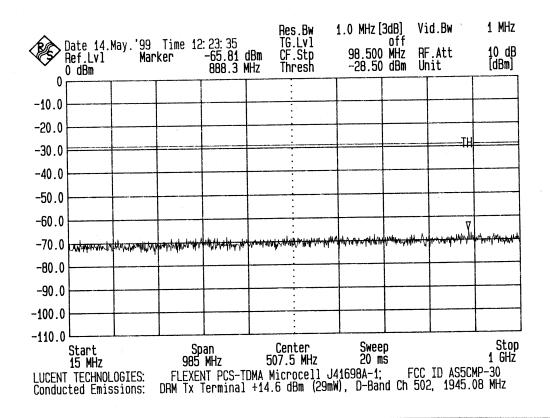
Channel 498, 1944.96 MHz

PCS-TDMA Dual Radio Module transceiver output

# **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal

**Data Plots of Conducted Spurious Emissions:** 



PCS D-Block: Lower Edge Channel

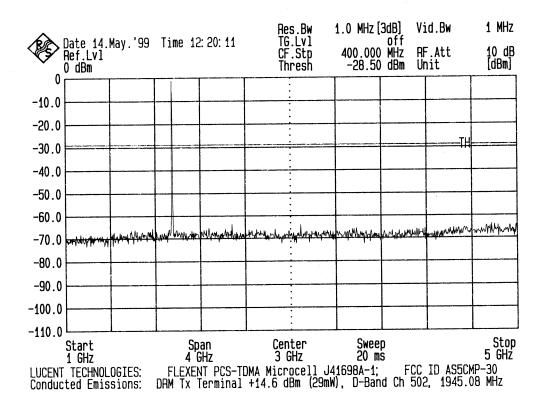
Channel 502, 1945.08 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS D-Block: Lower Edge Channel

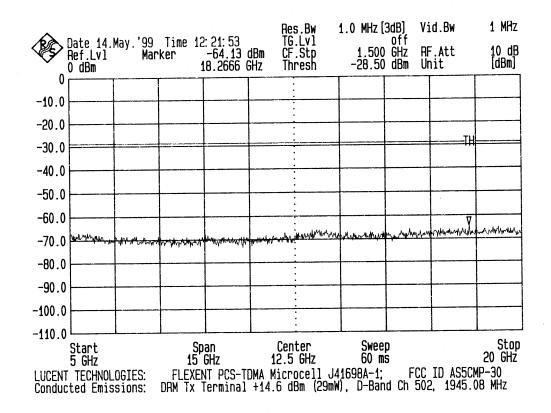
**Channel 502, 1945.08 MHz** 

PCS-TDMA Dual Radio Module transceiver output

## **EXHIBIT 17**

FCC ID: AS5CMP-30

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



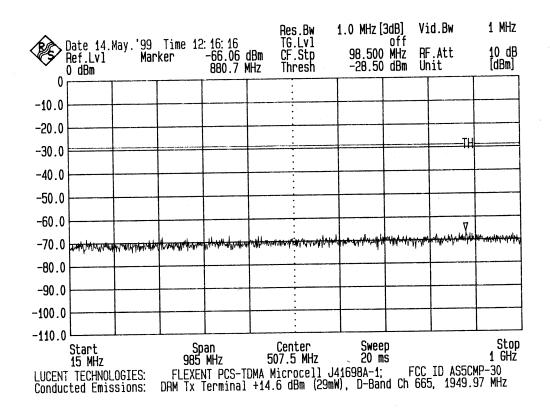
PCS D-Block: Lower Edge Channel Channel 502, 1945.08 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

**EXHIBIT 17** 

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS D-Block: Upper Edge Channel

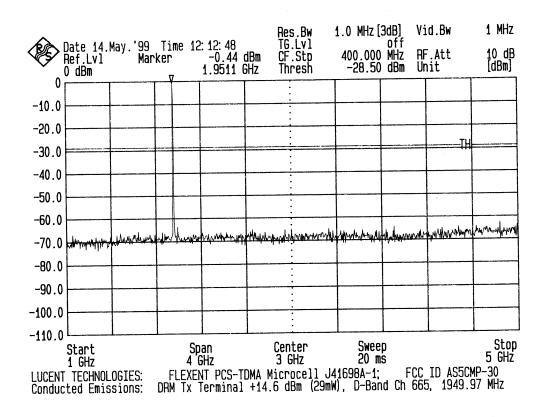
Channel 665, 1949.97 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS D-Block: Upper Edge Channel

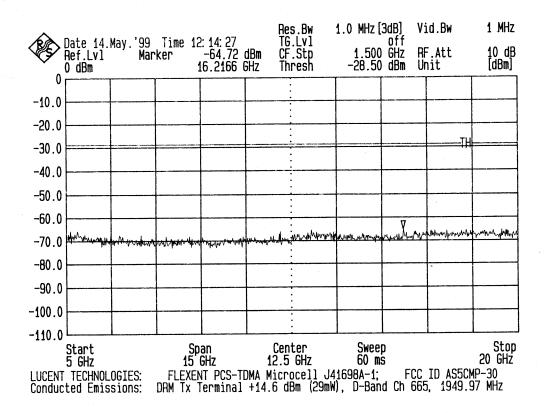
Channel 665, 1949.97 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



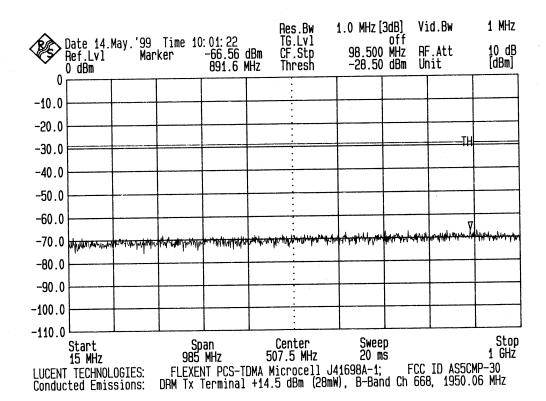
PCS D-Block: Upper Edge Channel

Channel 665, 1949.97 MHz

PCS-TDMA Dual Radio Module transceiver output

## **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal



PCS B-Block: Lower Edge Channel

Channel 668, 1950.06 MHz

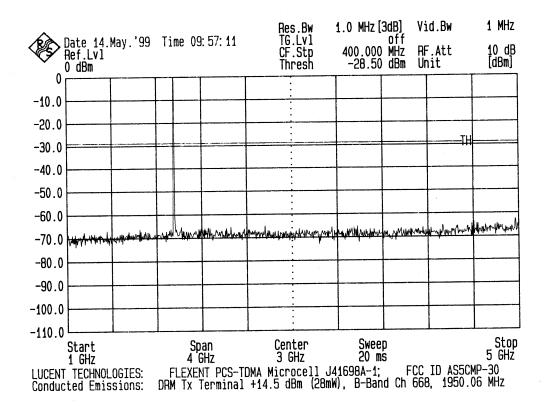
PCS-TDMA Dual Radio Module transceiver output

Plot 1 of 3

**Data Plots of Conducted Spurious Emissions:** 

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS B-Block: Lower Edge Channel

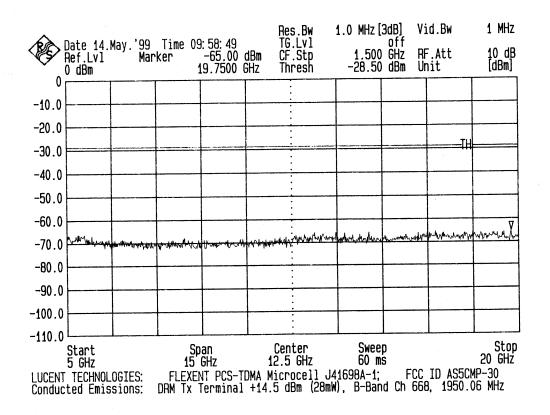
Channel 668, 1950.06 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

**EXHIBIT 17** 

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



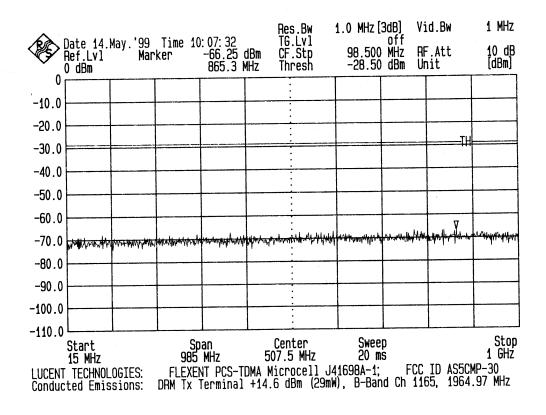
**PCS B-Block:** Lower Edge Channel

Channel 668, 1950.06 MHz

PCS-TDMA Dual Radio Module transceiver output

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



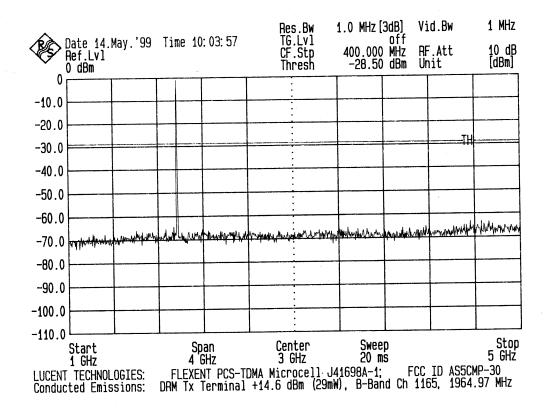
PCS B-Block: Upper Edge Channel

Channel 1165, 1964.97 MHz

PCS-TDMA Dual Radio Module transceiver output

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS B-Block: Upper Edge Channel

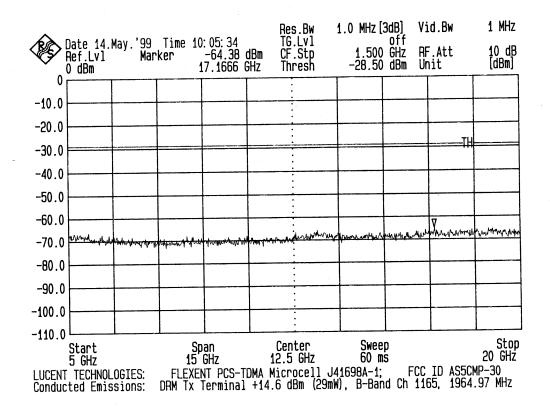
Channel 1165, 1964.97 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

**EXHIBIT 17** 

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



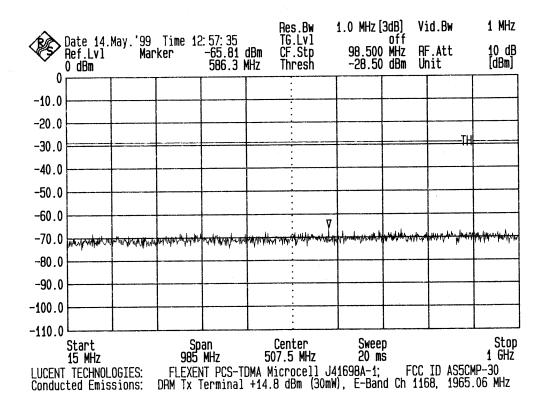
PCS B-Block: Upper Edge Channel

Channel 1165, 1964.97 MHz

PCS-TDMA Dual Radio Module transceiver output

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS E-Block: Lower Edge Channel

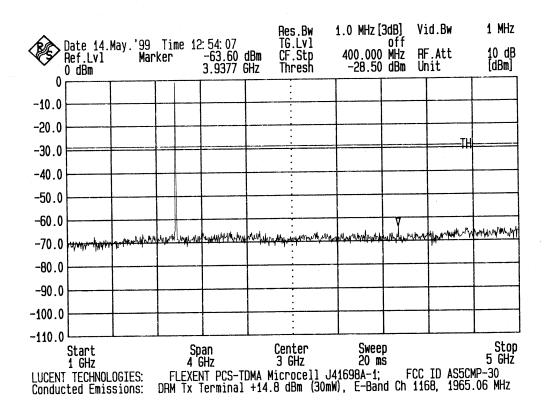
Channel 1168, 1965.06 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



**PCS E-Block:** Lower Edge Channel

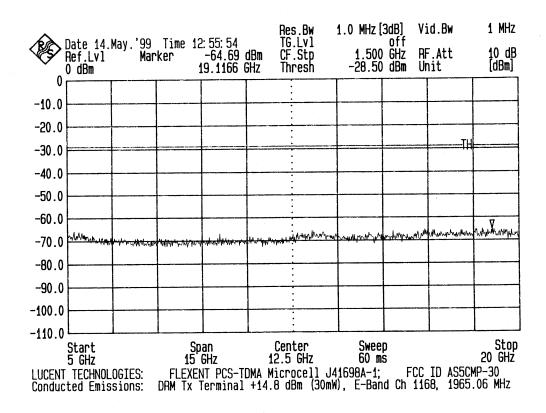
Channel 1168, 1965.06 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



**PCS E-Block:** Lower Edge Channel

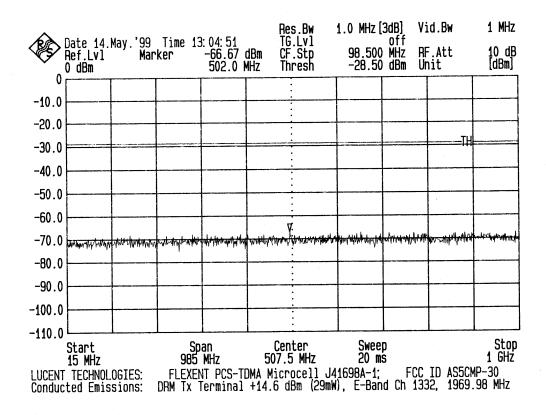
Channel 1168, 1965.06 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS E-Block: Upper Edge Channel

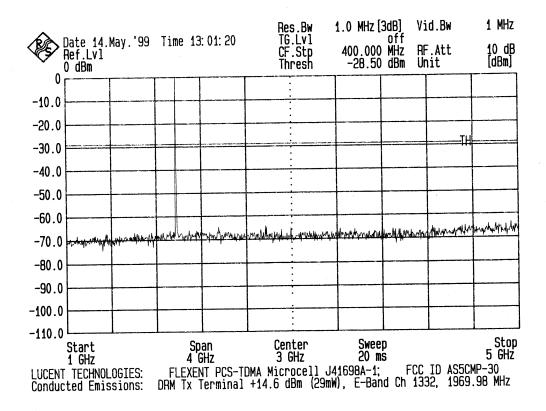
Channel 1332, 1969.98 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



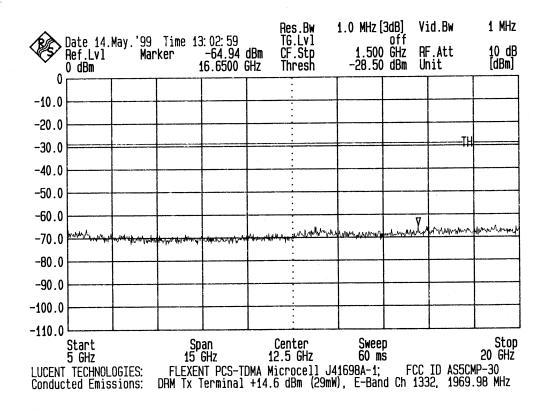
PCS E-Block: Upper Edge Channel

Channel 1332, 1969.98 MHz

PCS-TDMA Dual Radio Module transceiver output

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS E-Block: Upper Edge Channel

Channel 1332, 1969.98 MHz

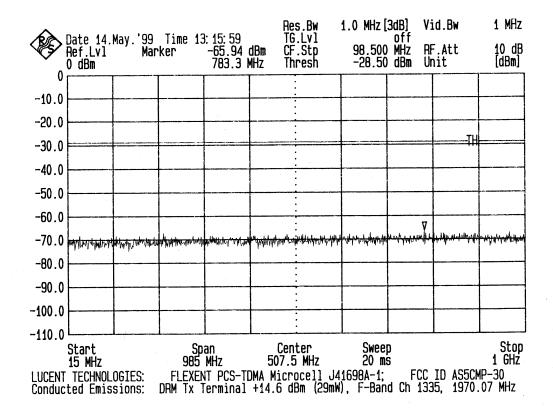
PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### EXHIBIT 17

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal

**Data Plots of Conducted Spurious Emissions:** 



PCS F-Block: Lower Edge Channel

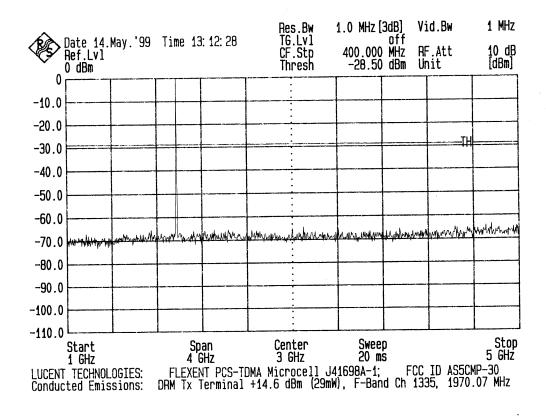
Channel 1335, 1970.07 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



**PCS F-Block:** Lower Edge Channel

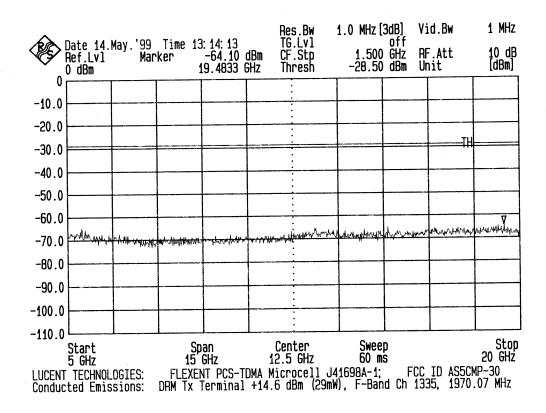
Channel 1335, 1970.07 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



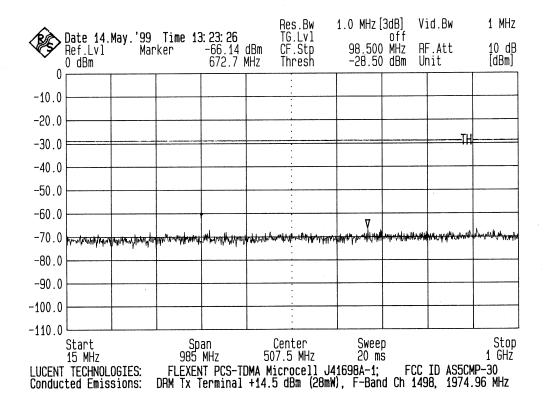
PCS F-Block: Lower Edge Channel

Channel 1335, 1970.07 MHz

PCS-TDMA Dual Radio Module transceiver output

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS F-Block: Upper Edge Channel

Channel 1498, 1974.96 MHz

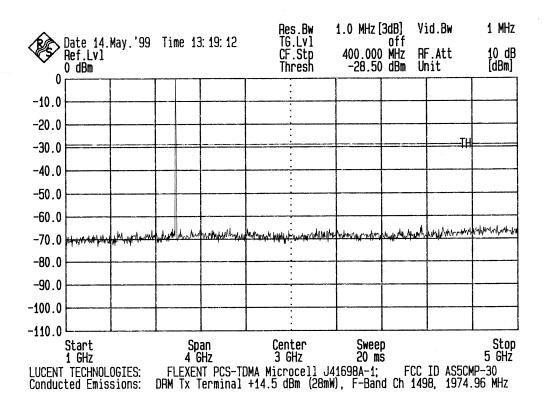
PCS-TDMA Dual Radio Module transceiver output

**Data Plots of Conducted Spurious Emissions:** 

FCC ID: AS5CMP-30

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal



PCS F-Block: Upper Edge Channel

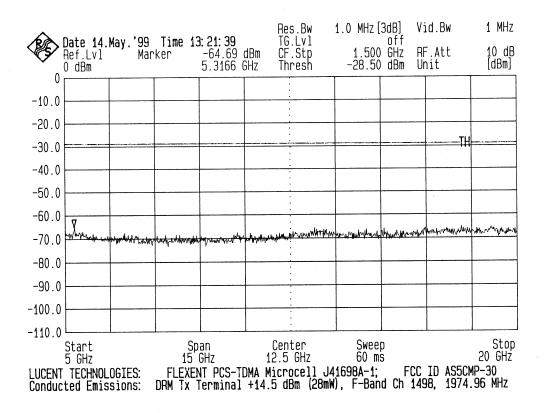
Channel 1498, 1974.96 MHz

PCS-TDMA Dual Radio Module transceiver output

# FCC ID: AS5CMP-30

**EXHIBIT 17** 

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS F-Block: Upper Edge Channel

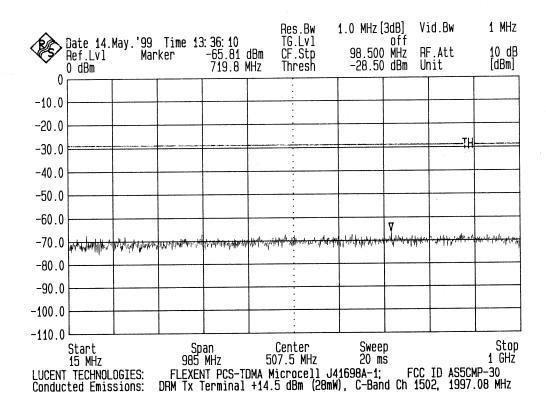
Channel 1498, 1974.96 MHz

PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

**EXHIBIT 17** 

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



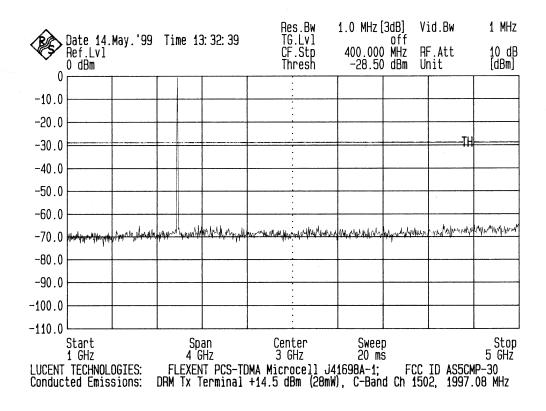
PCS C-Block: Lower Edge Channel

Channel 1502, 1975.08 MHz

PCS-TDMA Dual Radio Module transceiver output

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



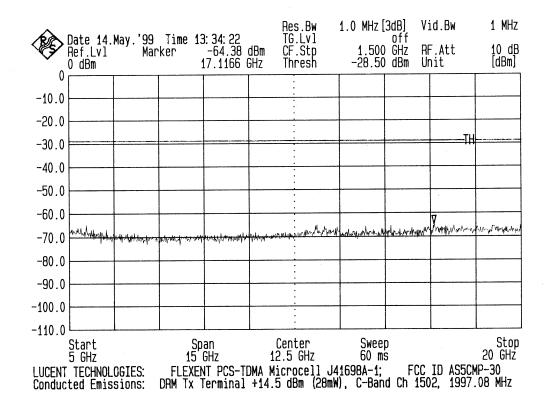
**PCS C-Block:** Lower Edge Channel

Channel 1502, 1975.08 MHz

PCS-TDMA Dual Radio Module transceiver output

## **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



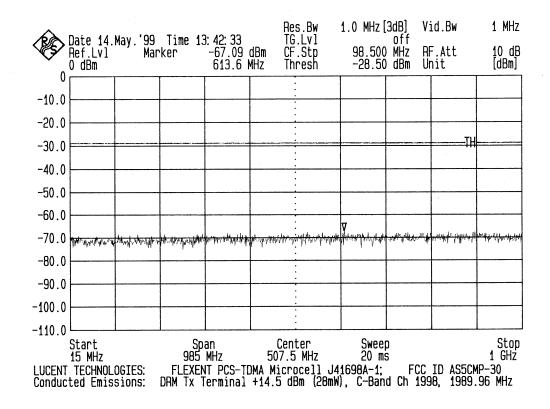
**PCS C-Block:** Lower Edge Channel

Channel 1502, 1975.08 MHz

PCS-TDMA Dual Radio Module transceiver output

#### **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal Data Plots of Conducted Spurious Emissions:



PCS C-Block: Upper Edge Channel

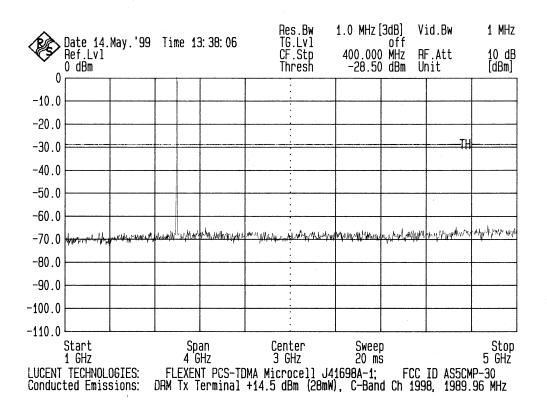
Channel 1998, 1989.96 MHz

PCS-TDMA Dual Radio Module transceiver output

## **EXHIBIT 17**

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal

Data Plots of Conducted Spurious Emissions:



PCS C-Block: Upper Edge Channel

Channel 1998, 1989.96 MHz

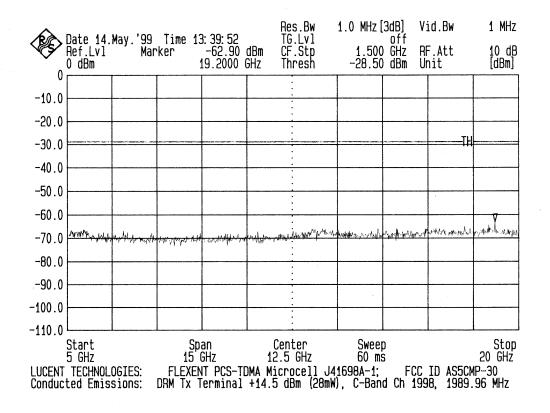
PCS-TDMA Dual Radio Module transceiver output

FCC ID: AS5CMP-30

**EXHIBIT 17** 

Section 2.1051 Measurements Required: Spurious Emissions at Antenna Terminal

**Data Plots of Conducted Spurious Emissions:** 



PCS C-Block: Upper Edge Channel

Channel 1998, 1989.96 MHz

PCS-TDMA Dual Radio Module transceiver output