Facility Name:	NYU Wireless Laboratory
Location:	SOE, 2MTC 9.118, Brooklyn, NY 11201
Contact:	Theodore Rappaport
Website:	http://nyuwireless.com/

Description: Dr. Rappaport's group has been a leader in understanding mmWave propagation. Our early measurements in New York City provided some of the first demonstrations of the feasibility of micro- and picocellular mmWave networks in dense urban environments. Statistical channel models derived from these measurements have been widely-used by many academic and industrial groups working in the mmWave space. This goal of this project is to continue the development of spatial and temporal statistical channel models from extensive measurement campaigns in both indoor and outdoor environments.

Some of the work within the project includes:

- Development of a channel sounder with very high spatial and temporal resolution for measuring the 3D wideband mmWave channels.
- Extensive propagation measurements and development of spatial statistical channel models with a particular focus on (a) outdoor urban environments such as New York City and (b) indoor office settings. These models, published in a number of highly-cited papers, have been widely-adopted by both academic and industrial research groups. Our initial results have characterized both access (base station-mobile) and backhaul (base station-relay) links. The models capture key components of the link including path loss, spatial and temporal distributions and outage probabilities.

Date of Entry	Supplier	Item	Model #	Part #	Serial #	NYU Label	Room	Location
5/31/2014	Phase Matrix	Phase Matrix QuickSyn Microwave Frequency Synthesizer 0.2 to 20 GHz	FSW-0020	782393-01	13301-00498	PM-FSW0020-001	2MTC - 9.118	Channel Sounder TX Cart
5/31/2014	Phase Matrix	Phase Matrix QuickSyn Microwave Frequency Synthesizer 0.2 to 20 GHz	FSW-0020	782393-01	13301-00364	PM-FSW0020-002	2MTC - 9.118	Channel Sounder TX Cart
5/31/2014	Phase Matrix	Phase Matrix QuickSyn Microwave Frequency Synthesizer 0.2 to 20 GHz	FSW-0020	782393-01	13301-00506	PM-FSW0020-003	2MTC - 9.118	Channel Sounder RX Cart
5/31/2014	Phase Matrix	Phase Matrix QuickSyn Microwave Frequency Synthesizer 0.2 to 20 GHz	FSW-0020	782393-01	13301-00360	PM-FSW0020-004	2MTC - 9.118	In box on shelf with NI gear
5/31/2014	Phase Matrix	Phase Matrix QuickSyn Microwave Frequency Synthesizer 0.2 to 20 GHz	FSW-0020	782393-01	13301-00566	PM-FSW0020-005	2MTC - 9.118	In box on shelf with NI gear
5/31/2014	Phase Matrix	Phase Matrix QuickSyn Microwave Frequency Synthesizer 0.2 to 20 GHz	FSW-0020	782393-01	13301-00525	PM-FSW0020-006	2MTC - 9.118	In box on shelf with NI gear

Facility Name:	NYU Wireless mmWave Laboratory
Location:	SOE, 2MTC 9.118, Brooklyn, NY 11201
Contact:	Sundeep Rangan
Website:	http://nyuwireless.com/

Description: The research focus of Dr. Rangan's lab is in wireless communications, signal processing, information theory and control theory.

Equipment	Description	Quantity
C02201A/00	Covertor Evaluation Board	1
NI 7976 FPGA	Field Programmable Gate Array	1
PXIE- 7976R	FLEXRIO FPGA Module (KINTEX-7,K410T, 2GB RAM,3.2.GB/S)	1
NI 8133	RT controller	2
NI 7966 FPGA	Field Programmable Gate Array	2